

# DAILY SCIENCE LOG BOOK

MISSION  
NUMBER

2021-025

DATE:

From:

23 JUL 2021

To:

27 JUL 2021

VESSEL:

NEOCALIGUS

PROJECT(S):

STRAIT OF GEORGIA / SALISH SEA  
ZOOPLANKTON SURVEY

Water Properties Group  
Fisheries and Oceans Canada  
Institute of Ocean Sciences  
Ocean Sciences Division  
North Saanich, BC, Canada

[WaterProperties.ca](http://WaterProperties.ca)

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

1000

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1. *What is the main purpose of the study?*

10

## Watch Cabin

[illegible]

## Watch Cabin

This image shows a blank sheet of white paper with horizontal blue ruling lines. There are two vertical red margin lines, one on each side, creating a central writing area. The paper appears to be from a notebook or a standard ruled document.

**\*\* The following 3 pages are VERY IMPORTANT as they document equipment and settings used on board \*\***

These pages are to be completed by the CTD Technician setting up the equipment, the Watch Leader on board, and the Chief Scientist MUST verify that all relevant sections are completed prior to leaving the vessel. Any mid-cruise changes to be noted by watch leader in the notes.

Data logging computer: WP-14

Data acquisition program: \_\_\_\_\_

CTD deck unit make: \_\_\_\_\_ model: \_\_\_\_\_ serial number: \_\_\_\_\_

**Primary CTD**

Make: SBE model: 25 serial number: 436

Primary temperature serial number: 5130

Primary conductivity serial number: 3500

Secondary temperature serial number: ✓

Secondary conductivity serial number: ✓

Transmissometer: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Transmissometer: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Fluorometer: Model Wetlab ECO Cable gain: ✓ s/n: 4185 P, S or NO pump?

Fluorometer: Model \_\_\_\_\_ Cable gain: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Oxygen sensor: SBE Model: 43 s/n: 3234 P, S or NO pump?

PAR sensor: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_ Surface PAR? Y / N

Other sensors: SBE ST Pump s/n: 5226 P, S or NO pump?

Other sensors: SBE 21 Pressure s/n: 573 P, S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

**Secondary CTD**

Make: \_\_\_\_\_ model: \_\_\_\_\_ serial number: \_\_\_\_\_

Primary temperature serial number: \_\_\_\_\_

Primary conductivity serial number: \_\_\_\_\_

Secondary temperature serial number: \_\_\_\_\_

Secondary conductivity serial number: \_\_\_\_\_

Transmissometer: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Transmissometer: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Fluorometer: Model \_\_\_\_\_ Cable gain: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Fluorometer: Model \_\_\_\_\_ Cable gain: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Oxygen sensor: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

PAR sensor: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_ Surface PAR? Y / N

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

**CTD calibration bottle location (height above CTD in metres):** \_\_\_\_\_

This also includes the bottle location above the CTD on non-rosette casts (e.g., W.E. Ricker)

## DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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| Month <u>JULY</u> |              |     |            | Year <u>2021</u> |            | Vessel <u>NEOCALICUS</u> |                     | Cruise ID <u>2021-025</u> |                 |                   |                       |              |               |                                     |                   |
|-------------------|--------------|-----|------------|------------------|------------|--------------------------|---------------------|---------------------------|-----------------|-------------------|-----------------------|--------------|---------------|-------------------------------------|-------------------|
| Event Number      | Station Name | Day | Time (UTC) | Time Code        | Event Type | Firing Method            | Positional Latitude | Information Longitude     | Bottom Pressure | Max Cast Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/Fl Cleaned                     | Comments          |
| 1                 | CE01         | 23  | 19:42      | BE               | CTD        |                          | 49°15.060           | 123°44.973                | 401             |                   | -                     | 1            | MB            | <input checked="" type="checkbox"/> | DEPART 1850 1140  |
|                   |              |     | 19:48      | BO               | BOT        | MSG                      | 49°15.084           | 123°44.986                |                 | 391               | 1 -                   |              |               | <input type="checkbox"/>            | DEEP SALINITY     |
|                   |              |     | 19:58      | EN               |            |                          | 49°15.132           | 123°44.011                |                 |                   | -                     |              |               | <input type="checkbox"/>            | 72 men Soak.      |
| 2                 | CE01         | 23  | 19:59      | BE               | BOT        | MSG                      | 49°15.152           | 123°45.042                |                 | Ø                 | 2 -                   | 1            | MB            | <input type="checkbox"/>            | 2021-025-0001.16x |
| 3                 | CE01         | 23  | 20:05      | BE               | NET        | -                        | 49°14.973           | 123°44.927                | 401             |                   | -                     |              |               | <input type="checkbox"/>            |                   |
|                   |              |     | 20:16      | BO               |            |                          | 49°15.057           | 123°44.995                |                 | 391               | -                     |              |               | <input type="checkbox"/>            |                   |
|                   |              |     | 20:22      | EN               |            |                          | 49°15.033           | 123°45.034                |                 |                   | -                     |              |               | <input type="checkbox"/>            |                   |
| 4                 | 3            | 23  | 23:04      | BE               | CTD        | -                        | 49°26.590           | 124°20.275                | 325             |                   | -                     |              |               | <input checked="" type="checkbox"/> | 2021-025-0004.16x |
|                   |              |     | 23:10      | BO               |            |                          | 49°26.587           | 124°20.339                |                 | 315               | -                     |              |               | <input type="checkbox"/>            |                   |
|                   |              |     | 23:15      | EN               |            |                          | 49°26.596           | 124°20.421                |                 |                   | -                     |              |               | <input type="checkbox"/>            |                   |
| 5                 | 3            |     | 23:16      | BE               | BOT        | MSG                      | 49°26.597           | 124°20.427                | 325             | Ø                 | 3 -                   | 1            | MB            | <input type="checkbox"/>            |                   |
| 6                 | BS11         | 24  | 01:01      | BE               | CTD        | -                        | 49°28.973           | 124°45.986                | 601             |                   | -                     |              |               | <input checked="" type="checkbox"/> | 2021-025-0006.16x |
|                   |              |     | 01:02      | BO               |            |                          | 49°28.972           | 124°45.997                |                 | 51                | -                     |              |               | <input type="checkbox"/>            |                   |
|                   |              |     | 01:03      | EN               |            |                          | 49°28.972           | 124°45.987                |                 |                   | -                     |              |               | <input type="checkbox"/>            |                   |
| 7                 | BS11         | 24  | 01:04      | BE               | BOT        | MSG                      | 49°28.962           | 124°46.000                |                 | Ø                 | 4 -                   | 1            | MB            | <input type="checkbox"/>            |                   |
| 8                 | BS11         | 24  | 01:05      | BE               | NET        | -                        | 49°28.962           | 124°46.000                | 600             |                   | -                     | -            | MB            | <input type="checkbox"/>            |                   |
|                   |              |     | 01:07      | BO               |            |                          | 49°28.950           | 124°46.009                |                 | 50                | -                     |              |               | <input type="checkbox"/>            |                   |
|                   |              |     | 01:08      | EN               |            |                          | 49°28.952           | 124°46.007                |                 |                   | -                     |              |               | <input type="checkbox"/>            |                   |
|                   |              |     | :          |                  |            |                          | °                   | °                         |                 |                   | -                     |              |               | <input type="checkbox"/>            |                   |

## Event Type:

BOT = Bottle cast (no CTD)  
 CTD = Standalone CTD  
 ROS = CTD in Rosette  
 SET = Fish Set

LOOP = Sea Water Loop  
 MOR = Mooring  
 NET = Plankton Net Haul  
 DRF = Drifter

## Bottle Firing Method:

US = Up / Stop (default)  
 UN = Up / No stop  
 DN = Down / No stop

Notes:

## Time Code:

BE = Beginning Time of Cast  
 BO = Bottom Time of Cast  
 EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time  
 MR = Messenger Release Time  
 RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

WaterProperties.ca  
 Version: 20 April 2016

This page is for any notes or observations



END OF DAY 1: TIC UP IN DEEP COVE. WENT FOR A LOVELY WALK TO THE END OF THE SPIT.  
SAT AND WATCHED WATER. LISTENED TO BIRDS AND FOLKS MERRY MAKING OVER IN THE  
MARINA.

# DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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| Month <u>Jul</u> |              |     | Year <u>2021</u> |           |            | Vessel <u>NOGATILUS</u> |                     |                       | Cruise ID <u>2021-025</u> |                   |                       |              |               |                                     |          |
|------------------|--------------|-----|------------------|-----------|------------|-------------------------|---------------------|-----------------------|---------------------------|-------------------|-----------------------|--------------|---------------|-------------------------------------|----------|
| Event Number     | Station Name | Day | Time (UTC)       | Time Code | Event Type | Firing Method           | Positional Latitude | Information Longitude | Bottom Pressure           | Max Cast Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned                     | Comments |
| 9                | CPF2         | 24  | 15:12            | BC        | CTD        | -                       | 49° 28.007          | 124° 29.998           | 328                       |                   | -                     | -            | MB            | <input checked="" type="checkbox"/> |          |
|                  |              |     | 15:18            | BO        |            |                         | 49° 28.018          | 124° 29.941           |                           | 318               | -                     |              |               | <input type="checkbox"/>            |          |
|                  |              |     | 15:23            | CU        |            |                         | 49° 28.030          | 124° 29.862           |                           |                   | -                     |              |               | <input type="checkbox"/>            |          |
| 10               | CPF2         | 24  | 15:27            | BC        | NET        | -                       | 49° 28.006          | 124° 30.047           | 328                       |                   | -                     | -            | MB            | <input type="checkbox"/>            |          |
|                  |              |     | 15:37            | BO        |            |                         | 49° 28.003          | 124° 29.946           |                           | 318               | -                     |              |               | <input type="checkbox"/>            |          |
|                  |              |     | 15:41            | CU        |            |                         | 49° 28.009          | 124° 29.888           |                           |                   | -                     |              |               | <input type="checkbox"/>            |          |
| 11               | 6            | 24  | 16:07            | BC        | CTD        | -                       | 49° 30.582          | 124° 27.792           | 191                       |                   | -                     |              | MB            | <input type="checkbox"/>            |          |
|                  |              |     | 16:10            | BO        |            |                         | 49° 30.572          | 124° 27.796           |                           | 181               | -                     |              |               | <input type="checkbox"/>            |          |
|                  |              |     | 16:13            | CU        |            |                         | 49° 30.564          | 124° 27.794           |                           |                   | -                     |              |               | <input type="checkbox"/>            |          |
| 12               | 6            | 24  | 16:14            | BC        | BOT        | MSR                     | 49° 30.555          | 124° 27.805           | 191                       | 0                 | 5-                    | 1            | MB            | <input type="checkbox"/>            |          |
| 13               | 9            | 24  | 17:12            | BC        | CTD        | -                       | 49° 35.563          | 124° 38.303           | 167                       |                   | -                     |              |               | <input checked="" type="checkbox"/> |          |
|                  |              |     | 17:15            | BO        |            |                         | 49° 35.500          | 124° 38.292           |                           | 157               | -                     |              |               | <input type="checkbox"/>            |          |
|                  |              |     | 17:17            | CU        |            |                         | 49° 35.495          | 124° 38.275           |                           |                   | -                     |              |               | <input type="checkbox"/>            |          |
| 14               | 9            | 24  | 17:18            | BC        | BOT        | MSR                     | 49° 35.493          | 124° 38.255           | 167                       | 0                 | 6-                    | 1            | MB            | <input type="checkbox"/>            |          |
| 15               | 11           | 24  | 18:09            | BC        | CTD        | -                       | 49° 42.416          | 124° 43.399           | 299                       |                   | -                     |              | MB            | <input checked="" type="checkbox"/> |          |
|                  |              |     | 18:14            | BO        |            |                         | 49° 42.388          | 124° 43.389           |                           | 289               | -                     |              |               | <input type="checkbox"/>            |          |
|                  |              |     | 18:19            | CU        |            |                         | 49° 42.384          | 124° 43.379           |                           |                   | -                     |              |               | <input type="checkbox"/>            |          |
|                  |              |     | :                |           |            |                         | °                   | °                     |                           |                   | -                     |              |               | <input type="checkbox"/>            |          |
|                  |              |     | :                |           |            |                         | °                   | °                     |                           |                   | -                     |              |               | <input type="checkbox"/>            |          |

## Event Type:

BOT = Bottle cast (no CTD)  
CTD = Standalone CTD  
ROS = CTD in Rosette  
SET = Fish Set

LOOP = Sea Water Loop  
MOR = Mooring  
NET = Plankton Net Haul  
DRF = Drifter

## Bottle Firing Method:

US = Up / Stop (default)  
UN = Up / No stop  
DN = Down / No stop

## Notes:

## Time Code:

BE = Beginning Time of Cast  
BO = Bottom Time of Cast  
EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time  
MR = Messenger Release Time  
RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

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Version: 20 April 2016

*This page is for any notes or observations*

BEGINNING OF DAY 1 SUNNY / CLEAR / CALM

## DAILY SCIENCE LOG

## Ocean Sciences Division, Institute of Ocean Sciences

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| Month <u>July</u> |              |     |            | Year <u>2021</u> |            |               | Vessel <u>NOGALICUS</u> |                       |                 | Cruise ID <u>2021-025</u> |                       |              |               |                                                              |          |
|-------------------|--------------|-----|------------|------------------|------------|---------------|-------------------------|-----------------------|-----------------|---------------------------|-----------------------|--------------|---------------|--------------------------------------------------------------|----------|
| Event Number      | Station Name | Day | Time (UTC) | Time Code        | Event Type | Firing Method | Positional Latitude     | Information Longitude | Bottom Pressure | Max Cast Pressure         | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned                                              | Comments |
| 16                | 11           | 24  | 18:20      | BE               | NET        | -             | 49° 42.376              | 124° 43.374           | 299             |                           | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 18:28      | BO               |            |               | ° 42.364                | ° 43.363              |                 | 289                       | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 18:33      | EN               |            |               | ° 42.363                | ° 43.276              |                 |                           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 17                | 12           | 24  | 19:16      | BE               | CTD        |               | 49° 43.618              | 124° 40.804           | 353             |                           | -                     |              | MB            | <input type="checkbox"/> <input checked="" type="checkbox"/> |          |
|                   |              |     | 19:22      | BO               | BOT        | MSC           | ° 43.613                | ° 40.801              |                 | 343                       | 7-                    | 1            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 19:29      | EN               |            |               | ° 43.607                | ° 40.806              |                 |                           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 18                | 12           | 24  | 19:31      | BE               | BOT        | MSC           | 49° 43.601              | 124° 40.811           |                 |                           | 8-                    |              | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 19                | 12           | 24  | 19:32      | BE               | NET        |               | 49° 43.600              | 124° 40.811           | 353             |                           | -                     |              | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 19:42      | BO               |            |               | ° 43.579                | ° 40.815              |                 | 343                       | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 19:47      | EN               |            |               | ° 43.582                | ° 40.808              |                 |                           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 20                | 20           | 24  | 20:53      | BE               | CTD        | -             | 49° 47.197              | 124° 32.321           | 310             |                           | -                     | -            | MB            | <input type="checkbox"/> <input checked="" type="checkbox"/> |          |
|                   |              |     | 20:58      | BO               |            |               | ° 47.193                | ° 32.312              |                 | 300                       | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 21:03      | EN               |            |               | ° 47.190                | ° 32.306              |                 |                           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 21                | 22           | 24  | 22:27      | BE               | CTD        | MSC           | 49° 40.213              | 124° 16.320           | 352             |                           | -                     |              |               | <input type="checkbox"/> <input checked="" type="checkbox"/> |          |
|                   |              |     | 22:33      | BO               | BOT        | MSC           | ° 40.213                | ° 16.319              |                 | 342                       | 9-                    | 1            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 22:40      | EN               |            |               | ° 40.241                | ° 16.338              |                 |                           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 22                | 22           | 24  | 22:41      | BE               | BOT        | MSC           | 49° 40.258              | 124° 16.353           | 352             | 0                         | 10-                   | 1            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 22:47      |                  |            |               | ° 40.258                | ° 16.353              |                 |                           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :          |                  |            |               | °                       | °                     |                 |                           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |

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 Version: 20 April 2016

## DAILY SCIENCE LOG

## Ocean Sciences Division, Institute of Ocean Sciences

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| Month <u>JULY</u> |              |     |            | Year <u>2021</u> |            |               | Vessel <u>NEOCARIGUS</u> |                       |                 |                   | Cruise ID <u>2021-025</u> |              |               |                                     |          |
|-------------------|--------------|-----|------------|------------------|------------|---------------|--------------------------|-----------------------|-----------------|-------------------|---------------------------|--------------|---------------|-------------------------------------|----------|
| Event Number      | Station Name | Day | Time (UTC) | Time Code        | Event Type | Firing Method | Positional Latitude      | Information Longitude | Bottom Pressure | Max Cast Pressure | Sample Serial Numbers     | # of Bottles | Watch Keepers | Trns/FI Cleaned                     | Comments |
| 23                | 22           | 24  | 22:41      | BE               | NET        | -             | 49° 40.164               | 124° 16.290           | 352             |                   | -                         | -            | MB            | <input type="checkbox"/>            |          |
|                   |              |     | 22:56      | BO               |            |               | ° 40.220                 | ° 16.324              |                 | 342               | -                         |              |               | <input type="checkbox"/>            |          |
|                   |              |     | 23:07      | EW               |            |               | ° 40.257                 | ° 16.338              |                 |                   | -                         |              |               | <input type="checkbox"/>            |          |
| 24                | IS-2         | 24  | 23:57      | BE               | CTD        | -             | 49° 38.184               | 124° 4.977            | 29              |                   | -                         |              | MB            | <input checked="" type="checkbox"/> |          |
|                   |              |     | 23:57      | BO               |            |               | ° 38.185                 | ° 4.975               |                 | 19                | -                         |              |               | <input type="checkbox"/>            |          |
|                   |              |     | 23:58      | EW               |            |               | ° 38.185                 | ° 4.975               |                 |                   | -                         |              |               | <input type="checkbox"/>            |          |
| 25                | IS-2         | 24  | 23:59      | BE               | NET        | -             | 49° 38.179               | 124° 5.002            | 29              |                   | -                         |              | MB            | <input type="checkbox"/>            |          |
|                   |              | 25  | 00:00      | BO               |            |               | ° 38.179                 | ° 5.007               |                 | 19                | -                         |              |               | <input type="checkbox"/>            |          |
|                   |              |     | 00:00      | EW               |            |               | ° 38.183                 | ° 4.999               |                 |                   | -                         |              |               | <input type="checkbox"/>            |          |
| 26                | 24           | 25  | 15:08      | BE               | CTD        | -             | 49° 30.301               | 124° 6.049            | 429             |                   | -                         |              | MB            | <input checked="" type="checkbox"/> |          |
|                   |              |     | 15:15      | BO               |            |               | ° 30.292                 | ° 6.064               |                 | 419               | -                         |              |               | <input type="checkbox"/>            |          |
|                   |              |     | 15:22      | EW               |            |               | ° 30.284                 | ° 6.116               |                 |                   | -                         |              |               | <input type="checkbox"/>            |          |
| 27                | 24           | 25  | 15:25      | BE               | NET        | -             | 49° 30.293               | 124° 5.960            | 429             |                   | -                         |              | MB            | <input type="checkbox"/>            |          |
|                   |              |     | 15:35      | BO               |            |               | ° 30.252                 | ° 6.018               |                 | 419               | -                         |              |               | <input type="checkbox"/>            |          |
|                   |              |     | 15:41      | EW               |            |               | ° 30.227                 | ° 6.642               |                 |                   | -                         |              |               | <input type="checkbox"/>            |          |
| 28                | 2            | 25  | 16:25      | BE               | CTD        | -             | 49° 24.122               | 124° 9.329            | 278             |                   | -                         |              |               | <input type="checkbox"/>            |          |
|                   |              |     | 16:29      | BO               |            |               | ° 24.102                 | ° 9.326               |                 | 268               | -                         |              |               | <input checked="" type="checkbox"/> |          |
|                   |              |     | 16:33      | EW               |            |               | ° 24.077                 | ° 9.332               |                 |                   | -                         |              |               | <input type="checkbox"/>            |          |
| 29                | 2            | 25  | 16:34      | BE               | BOT        | MSG           | 49° 24.077               | 124° 9.332            | 278             | 0                 | 11-                       | 1            | MB            | <input type="checkbox"/>            |          |

## Event Type:

BOT = Bottle cast (no CTD)  
 CTD = Standalone CTD  
 ROS = CTD in Rosette  
 SET = Fish Set

## LOOP = Sea Water Loop

MOR = Mooring  
 NET = Plankton Net Haul  
 DRF = Drifter

## Bottle Firing Method:

US = Up / Stop (default)  
 UN = Up / No stop  
 DN = Down / No stop

## Notes:

## Time Code:

BE = Beginning Time of Cast  
 BO = Bottom Time of Cast  
 EN = End Time of Cast

## CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time  
 MR = Messenger Release Time  
 RE = Recover Mooring Time

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END OF DAY 2: PONDIC HARBOUR, MADAGASCAR. WALKED UP TO LILY LAKE. LOUD, FAST  
SEAL TRUCKS ON SOUTHERN COAST HILL. FOUND A SPOT TO SWIM IN THE LAKE, DELICIOUS. CONTINUED WALK AROUND  
PART OF DAY 3 THE LAKE

# DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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| Month <u>July</u> |              |     | Year <u>2021</u> |           |            | Vessel <u>NOGACKTOS</u> |                     |                       | Cruise ID <u>2021-025</u> |                   |                       |              |               |                                                   |          |
|-------------------|--------------|-----|------------------|-----------|------------|-------------------------|---------------------|-----------------------|---------------------------|-------------------|-----------------------|--------------|---------------|---------------------------------------------------|----------|
| Event Number      | Station Name | Day | Time (UTC)       | Time Code | Event Type | Firing Method           | Positional Latitude | Information Longitude | Bottom Pressure           | Max Cast Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned                                   | Comments |
| 13<br>30          | CPEI         | 25  | 17:00            | BC        | CTD        | -                       | 49° 21.991          | 129° 41.954           | 244                       |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 17:04            | BO        |            |                         | ° 21.978            | ° 41.919              |                           | 234               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 17:08            | EN        |            |                         | ° 22.964            | ° 41.874              |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
| 31                | CPEI         | 25  | 17:11            | BC        | NET        | -                       | 49° 21.996          | 129° 5.058            | 244                       |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 17:17            | BO        |            |                         | ° 21.991            | ° 5.042               |                           | 234               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 17:21            | EN        |            |                         | ° 21.985            | ° 5.020               |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
| 14<br>32          | 28           | 25  | 18:41            | BC        | CTD        | -                       | 49° 24.109          | 123° 45.314           | 132                       |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 18:46            | BO        |            |                         | ° 24.166            | ° 45.319              |                           | 122               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 18:48            | EN        |            |                         | ° 24.105            | ° 45.322              |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
| 33                | 28           | 25  | 18:49            | BC        | NET        |                         | 49° 24.116          | 123° 45.336           | 132                       |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 18:53            | BO        |            |                         | ° 24.116            | ° 45.336              |                           | 122               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 18:55            | EN        |            |                         | ° 24.116            | ° 45.337              |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
| 15<br>34          | 27           | 25  | 19:32            | BC        | CTD        |                         | 49° 19.074          | 123° 48.023           | 344                       |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 19:38            | BO        | BOT        | MSG                     | ° 19.058            | ° 48.016              |                           | 334               | 12 -                  | 1            | MB            | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 19:45            | EN        |            |                         | ° 19.037            | ° 48.019              |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
| 16<br>35          | 27           | 25  | 19:45            | BC        | BOT        | MSG                     | 49° 19.037          | 123° 48.014           | 344                       | Ø                 | 13 -                  | 1            | MB            | <input type="checkbox"/> <input type="checkbox"/> |          |
| 36                | 40           | 25  | 21:02            | BC        | CTD        | -                       | 49° 8.612           | 123° 36.781           | 143                       |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 21:10            | BO        |            |                         | ° 8.621             | ° 36.775              |                           | 133               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |
|                   |              |     | 21:12            | EN        |            |                         | ° 8.625             | ° 36.750              |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |          |

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Notes:

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| Month <u>JUL</u> |              |     | Year <u>2021</u> |           |            | Vessel <u>NEOCALICUS</u> |                     |                       | Cruise ID <u>21-025</u> |                   |                       |              |               |                                                              |          |
|------------------|--------------|-----|------------------|-----------|------------|--------------------------|---------------------|-----------------------|-------------------------|-------------------|-----------------------|--------------|---------------|--------------------------------------------------------------|----------|
| Event Number     | Station Name | Day | Time (UTC)       | Time Code | Event Type | Firing Method            | Positional Latitude | Information Longitude | Bottom Pressure         | Max Cast Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned                                              | Comments |
| 37               | 40           | 25  | 21:15            | BC        | NET        | -                        | 49° 8.667           | 123° 36.869           | 141                     |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                  |              |     | 21:18            | BO        |            |                          | ° 8.615             | ° 36.856              |                         | 134               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                  |              |     | 21:              | EW        |            |                          | ° 8.                | ° 36.                 |                         |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 38               | 39           | 25  | 21:43            | BC        | CTD        | -                        | 49° 9.812           | 123° 32.973           | 375                     |                   | -                     | -            | MB            | <input checked="" type="checkbox"/> <input type="checkbox"/> |          |
|                  |              |     | 21:50            | BO        |            |                          | ° 9.837             | ° 3.981               |                         | 365               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                  |              |     | 21:56            | EW        |            |                          | ° 9.855             | ° 3.977               |                         |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 39               | 39           | 25  | 21:56            | BC        | BOT        | MSG                      | 49° 9.855           | 123° 3.977            |                         |                   | 14-                   | 1            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 40               | 38           | 25  | 22:30            | BC        | CTD        | -                        | 49° 11.949          | 123° 26.428           | 307                     |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                  |              |     | 22:35            | BO        |            |                          | ° 11.949            | ° 26.439              |                         | 297               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                  |              |     | 22:40            | EW        |            |                          | ° 11.946            | ° 26.440              |                         |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 41               | 38           | 25  | 22:41            | BC        | NET        | -                        | 49° 11.945          | 123° 26.445           | 307                     |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                  |              |     | 22:49            | BO        |            |                          | ° 11.947            | ° 26.467              |                         | 297               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                  |              |     | 22:54            | EW        |            |                          | ° 11.952            | ° 26.468              |                         |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 42               | 108          | 26  | 00:01            | BC        | CTD        | -                        | 49° 4.437           | 123° 19.158           | 92                      |                   | -                     | -            | MB            | <input checked="" type="checkbox"/> <input type="checkbox"/> |          |
|                  |              |     | 00:02            | BO        |            |                          | ° 4.480             | ° 19.184              |                         | 82                | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                  |              |     | 00:04            | EW        |            |                          | ° 4.534             | ° 19.208              |                         |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 43               | 41           | 26  | 14:59            | BC        | CTD        | -                        | 49° 3.296           | 123° 22.310           | 242                     |                   | -                     | -            | MB            | <input checked="" type="checkbox"/> <input type="checkbox"/> |          |
|                  |              |     | 15:03            | BO        |            |                          | ° 3.288             | ° 22.326              |                         | 232               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                  |              |     | 15:07            | EW        |            |                          | ° 3.279             | ° 22.343              |                         |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |

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CONCLUSION OF DAY 3: TIED UP @ STEVENSON. CONTEMPLATED A BEER WITH DAVE MY BROTHER, BUT ELECTED FOR A SELFISH WALK INSTEAD. STROLLED UP THE RIVER PAST HISTORICAL BUILDINGS AND A HALF A DOZEN DIFFERENT LANGUAGES. MY TURN AROUND SPOT WAS THE LONDON HERITAGE FARM. NICE SPOT, ALL TO MYSELF; EXPLORED THE GROUNDS, OLD FARM EQUIPMENT, VICTORIAN HOME AND VERY NICE ALLGMENT GARDEN TO THE BACK OF THE PROPERTY. A LEAKY CAMP - START DAY 4. DEPART STEVENSON TO COLLECT REMAINING SOL STING & INTO THE SOUTHERN GULF ISLANDS.

# DAILY SCIENCE LOG

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| Month <u>JULY</u> |              |     | Year <u>2021</u> |           |            | Vessel <u>ALGACALIFUS</u> |                     |                       | Cruise ID <u>2021-025</u> |                   |                       |              |               |                                                              |          |
|-------------------|--------------|-----|------------------|-----------|------------|---------------------------|---------------------|-----------------------|---------------------------|-------------------|-----------------------|--------------|---------------|--------------------------------------------------------------|----------|
| Event Number      | Station Name | Day | Time (UTC)       | Time Code | Event Type | Firing Method             | Positional Latitude | Information Longitude | Bottom Pressure           | Max Cast Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned                                              | Comments |
| 44                | 41           | 26  | 15:09            | BE        | NET        | -                         | 49° 3.279           | 123° 22.269           | 243                       |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :15              | BO        |            |                           | ° 3.272             | ° 22.290              |                           | 233               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :19              | EN        |            |                           | ° 3.252             | ° 22.290              |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 45                | 42           | 26  | 15:43            | BE        | CTD        |                           | 49° 1.825           | 123° 26.238           | 320                       |                   | -                     | -            | MB            | <input type="checkbox"/> <input checked="" type="checkbox"/> |          |
|                   |              |     | :48              | BO        |            |                           | ° 1.807             | ° 26.219              |                           | 310               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :53              | EN        |            |                           | ° 1.784             | ° 26.195              |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 46                | 42           | 26  | :54              | BE        | BOT        |                           | 49° 1.784           | 123° 26.195           | 320                       | Ø                 | 15-                   | 1            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 47                | 42           | 26  | 15:58            | BE        | NET        |                           | 49° 1.823           | 123° 26.199           | 320                       | 310               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 16:07            | BO        |            |                           | ° 1.734             | ° 26.192              |                           | ↓                 | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 16:11            | EN        |            |                           | ° 1.703             | ° 26.116              |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 48                | 46           | 26  | 17:34            | BE        | CTD        | -                         | 48° 51.354          | 123° 10.784           | 180                       |                   | -                     |              |               | <input type="checkbox"/> <input checked="" type="checkbox"/> |          |
|                   |              |     | 17:37            | BO        | BOT        | MSG                       | ° 51.312            | ° 10.720              |                           | 170               | 16-                   | 1            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 17:40            | EN        |            |                           | ° 51.276            | ° 10.657              |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 49                | 46           | 26  | 17:41            | BE        | BOT        | MSG                       | 48° 51.274          | 123° 10.653           | 180                       | Ø                 | 17-                   | 1            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 50                | 46           | 26  | 17:46            | BE        | NET        |                           | 48° 51.430          | 123° 10.805           | 175                       |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 17:50            | BO        |            |                           | ° 51.371            | ° 10.731              |                           | 167               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 17:53            | EN        |            |                           | ° 51.333            | ° 10.682              |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :                |           |            |                           | ° .                 | ° .                   |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :                |           |            |                           | ° .                 | ° .                   |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |          |

**Event Type:**  
 BOT = Bottle cast (no CTD)  
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 \_\_\_\_\_ = \_\_\_\_\_

**Bottle Firing Method:**  
 US = Up / Stop (default)  
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**Time Code:**  
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Notes: \_\_\_\_\_

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| Month <u>Jul-1</u> |              |     | Year <u>2011</u> |           |            | Vessel <u>AFRODITE</u> |                        |             | Cruise ID <u>7021-025</u> |                   |                       |              |               |                                                              |                         |
|--------------------|--------------|-----|------------------|-----------|------------|------------------------|------------------------|-------------|---------------------------|-------------------|-----------------------|--------------|---------------|--------------------------------------------------------------|-------------------------|
| Event Number       | Station Name | Day | Time (UTC)       | Time Code | Event Type | Firing Method          | Positional Information |             | Bottom Pressure           | Max Cast Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned                                              | Comments                |
|                    |              |     |                  |           |            |                        | Latitude               | Longitude   |                           |                   |                       |              |               |                                                              |                         |
| 23 ✓<br>51         | S6           | 26  | 18:48            | BC        | CTD        | -                      | 48° 46.435             | 123° 1.654  | 208                       |                   | -                     | -            | MB            | <input type="checkbox"/> <input checked="" type="checkbox"/> |                         |
|                    |              |     | 18:51            | BO        |            |                        | ° 46.356               | ° 1.775     |                           | 200               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |
|                    |              |     | 18:51            | BN        |            |                        | ° 46.334               | ° 1.871     |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |
| 52                 | S6           | 26  | 18:54            | BC        | BOT        | MSG                    | 48° 46.534             | 123° 1.871  | 208                       | 8                 | 18-                   | 1            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |                         |
| 24 ✓<br>53         | S9           | 26  | 20:16            | BC        | CTD        | -                      | 48° 37.027             | 123° 15.013 | 226                       |                   | -                     | -            | MB            | <input type="checkbox"/> <input checked="" type="checkbox"/> |                         |
|                    |              |     | 20:20            | BO        |            |                        | ° 37.019               | ° 14.989    |                           | 216               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |
|                    |              |     | 20:24            | BN        |            |                        | ° 37.013               | ° 14.981    |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |
| 54                 | S9           | 26  | 20:24            | BC        | BOT        | MSG                    | 48° 37.013             | 123° 14.780 | 226                       | 8                 | 19-                   | 1            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |                         |
| 55                 | S9           | 26  | 20:28            | BC        | NET        | -                      | 48° 36.013             | 123° 15.980 | 225                       |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |                         |
|                    |              |     | 20:35            | BO        |            |                        | ° 35.962               | ° 15.046    |                           | 215               | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |
|                    |              |     | 20:39            | BN        |            |                        | ° 35.969               | ° 15.036    |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |
| 25 ✓<br>56         | GI-01        | 26  | 21:44            | BC        | CTD        | -                      | 48° 45.906             | 123° 20.558 | 63                        |                   | -                     | -            | MB            | <input type="checkbox"/> <input checked="" type="checkbox"/> |                         |
|                    |              |     | 21:45            | BO        |            |                        | ° 45.                  | ° 20.       |                           | 53                | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            | } GBS BATTERIES<br>DEAD |
|                    |              |     | 21:46            | BN        |            |                        | ° 45.                  | ° 20.       |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |
| 57                 | GI-01        | 26  | 21:47            | BC        | NET        | -                      | 48° 45.                | 123° 20.    | 63                        |                   | -                     | -            | MB            | <input type="checkbox"/> <input type="checkbox"/>            |                         |
|                    |              |     | 21:49            | BO        |            |                        | ° 45.905               | ° 20.557    |                           | 53                | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |
|                    |              |     | 21:50            | BN        |            |                        | ° 45.908               | ° 20.557    |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |
|                    |              |     | :                |           |            |                        | ° .                    | ° .         |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |
|                    |              |     | :                |           |            |                        | ° .                    | ° .         |                           |                   | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/>            |                         |

## Event Type:

BOT = Bottle cast (no CTD)  
 CTD = Standalone CTD  
 ROS = CTD in Rosette  
 SET = Fish Set

## LOOP = Sea Water Loop

MOR = Mooring  
 NET = Plankton Net Haul  
 DRF = Drifter

## Bottle Firing Method:

US = Up / Stop (default)  
 UN = Up / No stop  
 DN = Down / No stop

## Time Code:

BE = Beginning Time of Cast  
 BO = Bottom Time of Cast  
 EN = End Time of Cast

## CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time  
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 RE = Recover Mooring Time

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Notes:

# DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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| Month <u>July</u> |              |     | Year <u>2021</u> |           |            | Vessel <u>NEOCALIGUS</u> |                     |                       | Cruise ID <u>2021-095</u> |                   |                       |              |               |                                                              |          |
|-------------------|--------------|-----|------------------|-----------|------------|--------------------------|---------------------|-----------------------|---------------------------|-------------------|-----------------------|--------------|---------------|--------------------------------------------------------------|----------|
| Event Number      | Station Name | Day | Time (UTC)       | Time Code | Event Type | Firing Method            | Positional Latitude | Information Longitude | Bottom Pressure           | Max Cast Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned                                              | Comments |
| 58                | SC-04        | 26  | 22:18            | BC        | CTD        | -                        | 48° 43.479          | 123° 25.037           | 91                        |                   | -                     | -            | MR            | <input type="checkbox"/> <input checked="" type="checkbox"/> |          |
|                   |              |     | 22:20            | BO        |            |                          | ° 43.476            | ° 25.058              |                           | 81                | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 22:21            | EW        |            |                          | ° 43.477            | ° 25.073              |                           |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 59                | SC-04        | 26  | 22:22            | BC        | BOT        | MOR                      | 48° 43.477          | 123° 25.074           | 91                        | Ø                 | 20-                   | 1            | MR            | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 60                | SC-04        | 26  | 22:25            | BC        | NET        | -                        | 48° 43.510          | 123° 25.964           | 91                        |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 22:27            | BO        |            |                          | 48° 43.517          | ° 25.009              |                           | 81                | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 22:28            | EW        |            |                          | ° 43.517            | ° 25.017              |                           |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 61                | CBC2         | 26  | 23:14            | BC        | CTD        | -                        | 48° 44.227          | 123° 34.452           | 63                        |                   | -                     | -            | MR            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 23:15            | BO        |            |                          | ° 44.233            | ° 34.461              |                           | 53                | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 23:16            | EW        |            |                          | ° 44.241            | ° 34.470              |                           |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
| 62                | CBC2         | 26  | 23:17            | BC        | NET        | -                        | 48° 44.249          | 123° 34.480           | 65                        |                   | -                     | -            | MR            | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 23:18            | BO        |            |                          | ° 44.260            | ° 34.488              |                           | 55                | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | 23:19            | EW        |            |                          | ° 44.263            | ° 34.493              |                           |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :                |           |            |                          | ° .                 | ° .                   |                           |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :                |           |            |                          | ° .                 | ° .                   |                           |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :                |           |            |                          | ° .                 | ° .                   |                           |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :                |           |            |                          | ° .                 | ° .                   |                           |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :                |           |            |                          | ° .                 | ° .                   |                           |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |
|                   |              |     | :                |           |            |                          | ° .                 | ° .                   |                           |                   | -                     | -            |               | <input type="checkbox"/> <input type="checkbox"/>            |          |

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Notes:

This page is for any notes or observations

END OF DAY 4 & CRUISE, TIE UP @ IOS UNLOAD IN MORNING.