

**FIELD EQUIPMENT VERIFICATION (PRE/POST A WEEKLY SAMPLING):**

| Session No: | Verifiers (pre-sampling): | Pre Date: | Pre Time: | Verifiers (post-sampling): | Post Date: | Post Time: |
|-------------|---------------------------|-----------|-----------|----------------------------|------------|------------|
| Landi 08    | E. Johnson, C. Keyhani    | 11/30/23  | 10:30 AM  | Y. St-Louis, C. Keyhani    | 12/4/2023  | 1345       |

| QA/QC Check      | Inst # | Probe # | Last Cal Date  |         | PRE: Verification Value |                       | POST: Verification Value |                        | Acceptable Range         | Comments/ Notes                                                                                 | QA? |
|------------------|--------|---------|----------------|---------|-------------------------|-----------------------|--------------------------|------------------------|--------------------------|-------------------------------------------------------------------------------------------------|-----|
| Temperature      | NIST   | n/a     | NIST Exp. Date | Std Val | NIST                    | NIST                  | NIST                     | NIST                   | ± 0.6 °C of NIST         | Compare to NIST Std value in tap water                                                          |     |
|                  | 2      |         |                |         | 29.2 °C                 | — °C                  | 28.7 °C                  | — °C                   |                          |                                                                                                 |     |
|                  | 4      | 8       | 6/28/24        |         | 29.2                    |                       | 28.5                     |                        |                          |                                                                                                 |     |
| Salinity         |        |         | 3 months       | Std Val | Tap water               | Salin Std             | Tap water                | Salin Std              | ± 1 ppt                  | Tap water - compare pre & post values<br>Salinity Std - compare to value on Salinity Std bottle |     |
|                  |        |         |                |         | 0.13                    | 11/6/23 date 33.5 ppt | 0.13                     | 11/27/23 date 34.4 ppt |                          |                                                                                                 |     |
|                  | 4      | 8       | 11/6/23        |         | 0.18                    | 33.5                  | 0.18                     | 33.9                   |                          |                                                                                                 |     |
| Dissolved Oxygen |        |         | 1 year         | Std Val | 100%                    |                       | 100%                     |                        | ± 5 %                    |                                                                                                 |     |
|                  |        |         |                |         | 102.4                   |                       | 100.2                    |                        |                          |                                                                                                 |     |
|                  | 4      | 4       | 7/17/23        |         |                         |                       |                          |                        |                          |                                                                                                 |     |
| pH               |        |         | 3 weeks        | Std Val | pH 7.00                 | pH 10.00              | pH 7.00                  | pH 10.00               | ± 0.1 pH of pH std value | Compare to Manufacturer pH Std value on bottle                                                  |     |
|                  |        |         |                |         | 6.99                    | 9.99                  | 6.99                     | 9.95                   |                          |                                                                                                 |     |
|                  | 4      | 6       | 11/27/23       |         |                         |                       |                          |                        |                          |                                                                                                 |     |
| Turbidity        |        |         | 3 months       | Std Val | BLANK <0.1              | LOW 1-10 NTU          | BLANK <0.1               | LOW 1-10 NTU           | ± 0.18 NTU Low 1-10      | Compare to Gel LOW 1-10 Std Calibration value                                                   |     |
|                  |        |         |                |         | 0.04                    | 6.64                  | 0.03                     | 6.65                   |                          |                                                                                                 |     |
|                  | 2      | n/a     | 11/6/23        |         |                         |                       |                          |                        |                          | Low std: 6.60                                                                                   |     |

QA: \* Are pre- and post within one week?  
\* Delay times are ok?  
\* Other equipment issues?

NMS Lab



Hui O Ka Wai Oia - Sample Collection Datasheet

|         |            |                                         |                                       |                      |          |             |
|---------|------------|-----------------------------------------|---------------------------------------|----------------------|----------|-------------|
| Team    | Lana'i     | Samplers<br>(Last Name,<br>1st Initial) | Y. St-Louis, L. Yannell,<br>M. Dexner | Meters and Probes ID |          |             |
| Session | 8          |                                         |                                       | HQ2200: 4            | 2100Q: 2 |             |
| Date    | 12/04/2023 |                                         |                                       | pH: 6                | DO: 4    | Salinity: 8 |

| Location Name<br>Sample ID          | Freshwater<br>Flowing<br>(Y/N) | Time<br>(of<br>collection) | Temp<br>(°C)<br>variable | Salinity<br>(ppt)<br>30-35<br>normal | Dissolved Oxygen            |                         | pH<br>8-8.3<br>normal | Turbidity<br>(NTU) |      |      | People (within 100 ft) |       |      |
|-------------------------------------|--------------------------------|----------------------------|--------------------------|--------------------------------------|-----------------------------|-------------------------|-----------------------|--------------------|------|------|------------------------|-------|------|
|                                     |                                |                            |                          |                                      | (mg/L)<br>5.2-7.0<br>normal | (%)<br>85-105<br>normal |                       |                    |      |      | water                  | beach | camp |
| Mānele Bay<br>LMN231204             | N                              | 0855                       | 26.4                     | 36.0                                 | 6.32                        | 95.2                    | 8.04                  | 5.19               | 5.73 | 5.40 | Ø                      | Ø     | Ø    |
| Hulopo'e Beach<br>Park<br>LHB231204 | N                              | 0930                       | 25.9                     | 36.0                                 | 6.85                        | 102.3                   | 8.14                  | 1.23               | 1.71 | 1.68 | Ø                      | Ø     | Ø    |

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).  
Use the back of the form if needed.

LMN - Light wind, clear sky, calm, High tide @ 0923. Harbor water looks brown  
Lots of rain last week > 1"  
Some rain last night  
Swell last week as well  
Took 4th turbidity: 5.73.  
LHB - calm water, normal surf shore break; pond full across parking lot from last week's rain. Workers pumping water out.

TURBIDITY VERIFICATION & PROBE TEMPERATURES

|                     | Blank<br>(must be <0.10) | Low<br>(+/- 0.18) | Med<br>(+/- 1.80) | High<br>(+/- 18) |
|---------------------|--------------------------|-------------------|-------------------|------------------|
| Turbidity Standard  | 0.06                     | 6.69              | 58.3              | 592              |
| Field - Pre-sample  | 0.06                     | 6.67              | 58.4              | 593              |
| Lab - Post sample   | 0.03                     | 6.65              | 58.5              | 593              |
| Probes (+/- 0.2 °C) | Salinity                 | D.O.              | pH                | Notes            |
| Verify Probe Temps  | 26.4                     | 26.2              | 26.3              |                  |

CHAIN OF CUSTODY INFORMATION

|           | # of samples | Relinquished to | Contact |
|-----------|--------------|-----------------|---------|
| Nutrients | 2            | NMS             | YMS     |

Signature (Team Lead):

Liz Yannell

Printed Name:

Liz Yannell

Sites with potential for freshwater flow: None

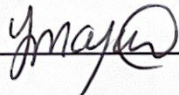


## Hāi O Ka Wai Ola - Sample Collection Datasheet

|         |            |                                   |                                    |
|---------|------------|-----------------------------------|------------------------------------|
| Team    | Lana'i     | Samplers (Last Name, 1st Initial) | Y. St-Louis, L. Yannell, M. Oexner |
| Session | 8          |                                   |                                    |
| Date    | 12/04/2023 |                                   |                                    |

| Sample ID     | Location Name       | Sample taken?                       | Duplicate sample?        | Time | Volume | Protocol Notes                                                          | Comments |
|---------------|---------------------|-------------------------------------|--------------------------|------|--------|-------------------------------------------------------------------------|----------|
| Nutrients     |                     |                                     |                          |      |        |                                                                         |          |
| LMN231204-N-1 | Mānele Bay          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 0855 | 125 ml | Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters |          |
| LHB231204-N-1 | Hulopo'e Beach Park | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 0930 | 125 ml | Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters |          |

|           |  |                          |                          |  |        |  |  |
|-----------|--|--------------------------|--------------------------|--|--------|--|--|
| Sediments |  |                          |                          |  |        |  |  |
|           |  | <input type="checkbox"/> | <input type="checkbox"/> |  | 500 ml |  |  |
|           |  | <input type="checkbox"/> | <input type="checkbox"/> |  | 500 ml |  |  |
|           |  | <input type="checkbox"/> | <input type="checkbox"/> |  | 500 ml |  |  |
|           |  | <input type="checkbox"/> | <input type="checkbox"/> |  | 500 ml |  |  |

|                                                                                       |                       |
|---------------------------------------------------------------------------------------|-----------------------|
| Signature (Team Lead):                                                                | Printed Name:         |
|  | Ylenia Mayan St-Louis |