

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
120	E. Janson J. Ewin L. Yannel	4/10/23	2:00PM	E. JOHNSON J. ERWIN L. YANNEL	4/13/23	12:23 PM

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	
	4	4	8/17/23		30.3 °C	30.2 °C	28.7 °C	28.6 °C			
	3	3	8/17/23		30.0		28.5 °C				
						29.8		28.5			
Salinity			3 months	Std Val	Tap water	Salin Std 11/26 date	Tap water	Salin Std 11/26 date	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	4	4	4/10/23		0.07	35.6	—	—		*PRE-VER USED HACH SOLUTION FROM CALIBRATION	
	3	3	4/10/23		0.07	35.0	0.09	35.4		*PRE-VER USED HACH SOLUTION FROM CALIBRATION Secondary verification 34.4 ppt	
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	4	4	8/15/23		100.5 %		99.0 %				
	3	1	2/6/23		100.6 %		—				
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	
	4	6	4/10/23		7.00	10.01	6.98	9.95			
	3	7	4/10/23		7.00	10.01	—	—			
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10	BLANK <0.1	LOW 1-10	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	4	n/a	4/10/23		0.06	6.06	0.08	6.11		Low standard 6.06	
	1	n/a	4/10/23		0.05	5.26	—	—		Low standard 5.23	

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

OLP

Team	R2RS	Samplers (Last Name, 1st Initial) S. Biesek, m. Floyd, T. Freiberg	Meters and Probes ID		
Session	120		HQ2200: 4		2100Q: 4
Date	4/11/2023		pH: 6	DO: 4	Salinity: 32.8

Location Name Sample ID	Freshwater Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
Napili Bay RNS230411	N	8:30	24.5	36.2	6.95	101.7	8.19	2.38	2.38	2.17	0	19	NA
Pohaku RPO230411	N	8:50	24.4	34.6	6.97	100.7	8.13	14.7	11.9	13.6	3	13	NA
Kaanapali Shores RKS230411	N	9:10	24.6	35.8	6.88	101.1	8.16	2.64	3.13	3.59	4	12	NA
Kahekili Beach Two RKT230411	N	9:30	24.9	36.2	6.73	100.0	8.15	4.34	4.92	4.49	0	0	NA
Canoe Beach RCB230411	N	9:52	25.9	35.9	6.76	101.5	8.14	4.13	6.03 5.35	5.14	2	3	NA
Wahikuli RWA230411	N	10:10	25.6	35.0	6.68	99.4	8.16	0.84	0.76	0.78	1	3	NA

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

RNS - JUST CLEARED UP 2nd 1st 6 Swells
RPO - MURKY WATER, Big Swells
RKS - MURKY, 4th read of turb: 4.20
RKT - SAMPLED AT NORTH POINT AS REF.
RCB - CALMER WATER, MURKY, 4th TURB = 5.35
RWA - CALM, LITTLE KID VERY CLOSE TO SAMPLES

Sites with potential for freshwater flow: Kaanapali Shores, Canoe Beach

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	6.06	63.7	625
Pre-sampling	0.08	6.10	62.8	627
Post-sampling	0.07	6.10	63.3	627

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	OLP	Jess Erwin
Bacteria	-	-	-

Signature (Team Lead):

Jess

Printed Name:

Jessica Erwin

Hawaii Kai Water Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	S. Beiser, M. Floyd, T. Freiberg
Session	120		
Date	04/11/23		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS230411-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO230411-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS230411-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT230411-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB230411-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA230411-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:10	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		

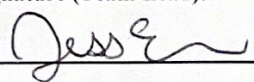
Signature (Team Lead):	Printed Name:
	Jessica Erwin

Table 1: Sample Collection Data Sheet

Team	Polanui	Samplers (Last Name, 1st Initial) Gund, K Harris, K	Meters and Probes ID		
Session	120		HQ2200: 4	2100Q: 4	
Date	4/12/2023		pH: 6	DO: 4	Salinity: 33.9

Location Name Sample ID	Freshwater Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
505 Front St PFF230412	Y	8:14	24.7	33.9	6.00	87.3	8.04	0.87	0.91	0.81	0	5	0
Lindsey Hale PLH230412	N	8:41	24.9	34.9	6.10	89.5	8.06	2.27	2.41	2.40	1	3	0
Lahaina Town PLT230412	N	9:02	25.5	35.2	5.69	84.6	8.04	3.67	4.01	4.36	6	6	0
Camp Olowalu OCO230412	N	9:38	24.0	36.0	6.56	95.6	8.07	0.80 2.44	0.85	0.87	0	0	0
Papalaua Pali OPP230412	N	10:01	24.3	35.6	6.92	101.2	8.11	2.37	2.69	3.06	0	0	0

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

PFF 2 more readings of blank were .09 .10
1 more reading of Med 6.29
see water flow photos
PLH 3 paddle boards
PLT super fine sediment agitated by
paddle boards + samples
4TH TURBIDITY READING = 5.06
* 1ST READ HAD A TINY BIT LONGER
IN METER BEFORE "READ" ~ 10 SEC
OPP 4th turbidity read 3.28
?? Wondering why the 2100Q vile receptacle
is tighter than usual
Sites with potential for freshwater flow: 505 Front St.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	6.06	63.7	625
Pre-sampling	0.09	6.09	62.7	626
Post-sampling	0.07	6.12	63.5	625

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	OLP	EMILY JOHNSON
Bacteria	-	-	-

Signature (Team Lead):

Emily Johnson

Printed Name:

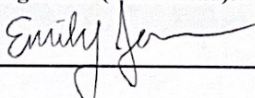
EMILY JOHNSON

Hui O Ka Waipaho Sample Collection Worksheet

Team	Polanui	Samplers (Last Name, 1st Initial) GUND, K HARRIS, K
Session	120	
Date	4/12/2023	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF230412-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:14	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH230412-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:41	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT230412-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO230412-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP230412-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:01	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: EMILY JOHNSON
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Team	R2RN	Samplers (Last Name, 1st Initial) <i>Hutchings, L</i> <i>Hchemdhn, C</i> <i>Johnson, E</i>	Meters and Probes ID		
Session	120		HQ2200: 4	2100Q: 4	
Date	04/13/23		pH: 6	DO: 4	Salinity: <i>43</i> <i>ey</i>

Location Name Sample ID	Freshwater Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
Honolua Bay RHL230413	<i>N</i>	<i>8:10a</i>	<i>23.6</i>	<i>34.9</i>	<i>6.66</i>	<i>95.7</i>	<i>8.09</i>	<i>20.0</i>	<i>20.9</i>	<i>18.3</i>	<i>2</i>	<i>4</i>	<i>0</i>
Oneloa Bay RON230413	<i>N</i>	<i>9:05a</i>	<i>24.5</i>	<i>36.4</i>	<i>6.88</i>	<i>101.4</i>	<i>8.16</i>	<i>0.55</i>	<i>0.54</i>	<i>0.54</i>	<i>0</i>	<i>4</i>	<i>0</i>
Kapalua Bay RFS230413	<i>N</i>	<i>9:30a</i>	<i>24.8</i>	<i>35.1</i>	<i>7.05</i>	<i>103.7</i>	<i>8.14</i>	<i>1.73</i>	<i>1.73</i>	<i>1.56</i>	<i>25</i>	<i>50</i>	<i>0</i>
Ka'opala Bay RKO230413	<i>N</i>	<i>10:05</i>	<i>24.3</i>	<i>35.7</i>	<i>6.80</i>	<i>99.6</i>	<i>8.10</i>	<i>8.11</i>	<i>8.45</i>	<i>5.54</i>	<i>0</i>	<i>0</i>	<i>0</i>
Kahana Village RKV230413	<i>N</i>	<i>10:35</i>	<i>24.5</i>	<i>36.0</i>	<i>7.35</i>	<i>108.0</i>	<i>8.21</i>	<i>5.01</i>	<i>3.46</i>	<i>4.53</i>	<i>0</i>	<i>0</i>	<i>0</i>

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

*RHL - cloudy sky, calm conditions
 4th HNL turbidity - 225, debris in bucket.*

*RON - cloudy sky, windy, high surf
 4th reading 0.54 at this location
 2nd salinity is 36.4 - same*

*RFS - crowded beach, ocean, partly cloudy
 Took 4th turbidity cause 2nd way off*

*RKO - 4th Turbidity 8.45, 5th Reading 7.56
 home wave action, murky water, No Flow from Storm Pipe*

RKV - Calm (little windy) - 4th + 5th Reading taken

Sites with potential for freshwater flow: Honolua Bay, Kahana Village

DO is high!

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	6.06	63.7	625
Pre-sampling	0.08	6.10	63.6	628
Post-sampling	0.08	6.11	63.2	627

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	<i>5</i>	<i>OLP</i>	<i>EMILY JOHNSON</i>
Bacteria	-	-	-

Signature (Team Lead):

Emily Johnson

Printed Name:

EMILY JOHNSON

Used 2nd Nutrient Bottle due to forgetting filter

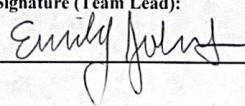
Last updated July 2021

HIWU Ka Wa' Oka - Sample Collection Database

Team	R2RN	Samplers (Last Name, 1st Initial) HUTCHINGS, L HEHEMANN, C JOHNSON, E
Session	120	
Date	04/13/23	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL230413-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON230413-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS230413-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO230413-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	USED EXTRA BOTTLE
RKV230413-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:35	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: EMILY JOHNSON
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