

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



Session No: 117 Verifiers (pre-sampling): L. Yannell, J. Erwin Pre Date: 2/6/23 Pre Time: 10:13 AM Verifiers (post-sampling): L. Yannell, J. Erwin, E. Johnson Post Date: 2/9/23 Post Time: 2:32 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	
		3	8/17/23		28.8		26.5				
		4	8/17/23		28.8		26.3				
					29.7						
Salinity			3 months	Std Val	Tap water	Salin Std 9/29/22 date 33.7 ppt	Tap water	Salin Std 9/29/22 date 33.7 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
		3	11/28/23		0.06	33.6	0.05	34.3			
		4	11/28/23		0.06	34.2				> confirmed tap water ppt with 2nd reading	
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
		3	1	2/6/23		100.0%		100.1%			
		4	4	8/15/22		102.4%				calibration successful today	
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	
		3	7	2/6/23		7.02	9.99	7.03	10.00		
		4	6	2/6/23		7.02	9.98				
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 5.23 NTU	BLANK <0.1	LOW 1-10 NTU	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
		1	n/a	2/6/23		0.05	5.23	0.05	5.21		
		4	n/a	1/16/23		0.08	6.43			Low Standard 6.43	

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

OLP lab



# Field Data Collection Worksheet

Team	R2RS	Samplers (Last Name, 1st Initial)	Floyd, M Bieser, S	Meters and Probes ID		
Session	117			HQ2200: 3		2100Q: 1
Date	2/07/2023			pH: 7	DO: 1	Salinity: 3

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 RNS230207	N	8:15	24.2	36.1	6.80	98.8	8.15	1.05	0.79	0.86	0	1	0
Pohaku RPO230207	N	8:42	24.6	35.3	6.57	95.7	8.14	2.69	2.96	2.69	0	0	0
Kaanapali Shores RKS230207	Y	9:05	24.3	35.4	6.80	98.7	8.19	1.27	1.54	1.33	1	1	0
Kahekili Beach Two RKT230207	N	9:35	24.1	35.7	6.76	98.1	8.16	3.19	3.13	3.07	3	2	0
Canoe Beach RCB230207	N	10:00	25.1	35.8	6.69	99.0	8.19	2.60	2.44	2.62	0	16	0
Wahikuli RWA230207	N	10:19	25.3	34.5	6.75	99.5	8.20	1.56	1.65	1.63	5	2	0

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

Pre-sample note: MEDIUM sample test  
Low - took 2 READINGS  
RNS: 1-2 ft swells, light rain  
RPO: CALM, light rain - took All New Turbidity  
readings due to rain on vials; confirmed  
RKS: 3ft water flow from freshwater stream  
light rain, calm swells  
4th turbidity reading 1.54  
RCB: calm swells

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	0.05	5.23	57.4	619
Pre-sampling	0.05	5.21	55.5	625
Post-sampling	0.07	5.17	56.1	623

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	OLD	Liz Yannell
Bacteria	-	-	-

Signature (Team Lead)

Liz Yannell

Printed Name:

Liz Yannell

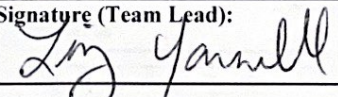


# HI-0 Ka Wa Oia Sample Collection Data Sheet

Team	R2RS	Samplers (Last Name, 1st Initial)	Floyd, M. Bleser, S.
Session	117		
Date	02/07/23		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS230207-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO230207-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS230207-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT230207-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB230207-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA230207-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:19	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:
	Liz Yannel



# Sample Collection Data Sheet

Team	Polanui	Samplers (Last Name, 1st Initial)	GUND, K GONZALEZ, T YANNELL, L JOHANSON, E	Meters and Probes ID		
Session	117			HQ2200: 3	2100Q: 1	
Date	2/08/2023			pH: 7	DO: 1	Salinity: 3

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 PFF230208	Y	8:18	24.0	35.3	5.46	82	8.10	3.89 2.57	4.33	3.45	Ø	Ø	Ø
Lindsey Hale PLH230208	N	8:45	24.5	35.2	5.23	76.3	8.05	7.79	9.01	8.83	Ø	2	Ø
Lahaina Town PLT230208	N	9:05	24.8	35.5	5.54	81.3	8.08	9.25	9.31	9.98	Ø	Ø	Ø
Camp Olowalu OCO230208	N	9:42	24.3	35.8	6.81	99.2	8.15	2.98	3.11	3.55	Ø	Ø	1
Papalaua Pali OPP230208	N	10:04	24.0	35.5	7.04	102.2	8.16	2.31	2.79	2.60	Ø	Ø	Ø

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

PFF 4<sup>th</sup> Turbidity 3.89 replaced 2.57, calm water  
PLH 2<sup>nd</sup> D.O. % to verify, same reading.  
PLH + PLT - brown and silty water at  
the shore; calm waters

OCO - wind picking up; sunny

OPP - WINDY + WAVE ACTION

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	0.07	5.23	57.4	619
Pre-sampling	0.06	5.36	56.0	623
Post-sampling	0.06	5.12	56.2	623

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	OLP	Liz Yannell
Bacteria	-	-	-

Signature (Team Lead):

Liz Yannell

Printed Name:

Liz Yannell



Team	Polanui	Samplers (Last Name, 1st Initial)	Gund, K. Gonzalez, T. Yannell, L. Johnson, E.
Session	117		
Date	2/08/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF230208-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH230208-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT230208-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO230208-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP230208-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:04	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): Liz Yannell	Printed Name: Liz Yannell
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Team	R2RN	Samplers (Last Name, 1st Initial)	Hutchings, L Heremenn, C	Meters and Probes ID		
Session	117			HQ2200: 3		2100Q: 1
Date	02/09/23			pH: 7	DO: 1	Salinity: 3

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 RHL230209	<del>Y</del> N	8:15A	—	NO	SAMPLE	—	—	—	—	—	<del>4</del> 0	<del>0</del> 0	<del>0</del> 0
Oneloa Bay RON230209	N	8:15A	23.4	36.2	6.91	99.8	8.21	0.53	0.65	0.65	0	0	0
Kapalua Bay RFS230209	N	8:50	23.6	36.1	6.76	97.7	8.19	1.18 <sup>th</sup>	0.89	0.81	0	5	0
Ka'opala Bay RKO230209	N	9:25	23.5	35.4	6.74	96.7	8.17	4.93	5.03	5.07	0	0	0
Kahana Village RKV230209	N	9:55	23.5	35.0	6.77	96.9	8.16	5.99	6.01	6.49	0	6	0

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

RON - extremely windy, gusty!! , waves  
RFS - 4th turbidity taken  
RKV - Very Windy - Bridge still under repair

#### TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	5.23	57.4	619
Pre-sampling	0.05	5.13	55.8	622
Post-sampling	0.05	5.21	56.1	619

#### CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	OLP	Liz Yannel
Bacteria	-	-	-

Signature (Team Lead):

Liz Yannel

Printed Name:

Liz Yannel

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



Team	R2RN	Samplers (Last Name, 1st Initial)	Hutchings, L. Hehemann, C.
Session	117		
Date	02/09/23		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RHL230209-N-1	Honolua Bay	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON230209-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS230209-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO230209-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV230209-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

<b>Sediments</b>							
		<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: Liz Yarnell
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