

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

Hui O Ka Wai Ola

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
94 95	N. Sampson	10/11/21	9:00	N. Sampson	10/14/21	10:30

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 25.4 °C	NIST 25.3 °C	NIST 26.1 °C	NIST — °C	± 0.6 °C of NIST  Compare to NIST Std value in tap water  Brand NEW NIST
	3 <sup>4</sup>	4	8/17/23		25.3		26.0		
	3 <sup>4</sup>	3	8/17/23		25.1		—		
Salinity			3 months	Std Val	Tap water 6/27/21 date 33.5 ppt	Tap water 6/27/21 date 33.5 ppt		± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle  Using Sal standard made by Cathy
	2	4	10/8/21		0.41	35.1	0.42	35.1	
	2	3	10/8/21		0.41	34.9	—	—	
Dissolved Oxygen			1 year	Std Val	100%	100%		± 5 %	
	2	4	8/12/21		99.7	100.6			
	2	1	9/28/20		—	—			could not find an replacement parts torn protective shroud - can't get cap on
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
	2	6	10/11/21		7.04	9.98	7.04	9.99	
	2	5	10/11/21		7.02	9.97	—	—	
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  Low: 5.56 NTU  Low: 5.41
	NBBF	n/a	10/8/21		0.06	5.54	0.07	5.53	
	1	n/a	10/8/21		0.05	5.45	—	—	

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

Lab: KAL

Team	R2RS	Samplers (Last Name, 1st Initial)	N. Sampson Charnave gallagher		Meters and Probes ID								
Session	95				HQ40d: 2		2100Q: NBBF						
Date	10/12/2021		pH:	6	DO:	4	Salinity:	4					
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 RNS211012	N	8:03	25.7	36.4 <sup>34.9</sup>	6.58	99.1	8.14	1.68	1.75	1.73	1	5	0
Pohaku RPO211012	N	8:40	26.3	36.6 <sup>35.1</sup>	6.32	96.4	8.15	8.60	7.87	7.96	0	4	0
Kaanapali Sh RKS211012	N	9:04	26.1	36.8 <sup>35.3</sup>	6.61	100.6	8.16	3.77	4.01	4.74	0	3	0
Kahekili Beach Two RKT211012	N	9:28	26.9	36.9 <sup>35.4</sup>	6.49	100.0	8.21	1.05	6.06	1.26	0	0	0
Canoe Beach RCB211012	N	9:50	27.3	36.5 <sup>35.0</sup>	6.63	102.6	8.22	8.04	7.96	8.14	0	0	0
Wahikuli RWA211012	N	10:17	27.5	37.1 <sup>35.6</sup>	6.51	101.4	8.22	2.53	2.66	2.65	2	0	0

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

RNS - raining 7:55-8:10, windy, sun came out, rough water inshore

RPO - slight breeze, rough break on shore

RKT - not as rough, sand dune broken - may allow stream to flow later if heavy rain continues

RCB - much calmer, still have a shore break, sunny, little breeze bigger surf further north, rocky on south end

RWA - calm, little break on shore, little to no wind, sunny  
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	5.56	57.4	612
Pre-sampling	0.07	5.55	57.8	613
Post-sampling	0.07	5.53	57.6	611

#### CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	KAL	N. Sampson
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

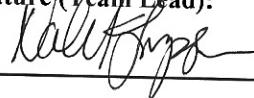
Naki Sampson

## Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	N. Sampson			
Session	95		C. Gallagher			
Date	10/12/2021					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RNS211012-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:03	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO211012-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS211012-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:04	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT211012-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:28	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB211012-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA211012-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:17	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

		<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: Natei Sampson

Team	Polanui	Samplers (Last Name, 1st Initial)	Mayen, Y Sampson, N	Changed salinity values to correct for error in salinity probe calibration. 1.5 ppt was subtracted from each measured value. QA					Meters and Probes ID		
Session	95								HQ40d: 2	2100Q: NBBF	
Date	10/13/2021			pH: 6	DO: 4	Salinity: 4					

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 PFF211013	Y	8:15	26.9	37.0 <sup>35.5</sup>	6.11	94.0	8.11	4.99	0	3	0
Lindsey Hale PLH211013	N	8:45	27.2	37.0 <sup>35.5</sup>	6.24	96.8	8.11	9.83			
Lahaina Town PLT211013	N	9:00	27.2	36.5 <sup>35.0</sup>	5.71	88.2	8.08	9.13	0	0	0
Camp Olowalu OCO211013	N	9:33	26.1	37.1 <sup>35.6</sup>	6.42	97.4	8.14	78.8 <sup>75.5</sup>	20.2	21.7	0
Papalaua Pali OPP211013	N	9:47	26.6	37.3 <sup>35.8</sup>	6.16	102.2	8.22	3.107	3.79	3.77	2
								3.01	2.87	2.80	0

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

PFF Stream light flow, high tide, 3 people playing on beach.

PLH Very high tide, swell

PLT 19.4 5<sup>th</sup> reading @ PLT (NTU)

OCO 2 water - snorkelers further out.  
↳ strong shore break

OPP → crashing shore waves with 6sec between & very windy

Sites with potential for freshwater flow: 505 Front St.

#### TURBIDITY VERIFICATION

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Standard	0.07	5.56	57.4	612
Pre-sampling	0.10	5.55	57.8	612
Post-sampling	0.06	5.55	57.6	612

#### CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KAL	N. Sampson
Bacteria	-	-	-

Signature (Team Lead):

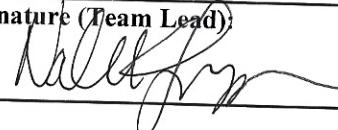
Printed Name:

Natei Sampson

Team	Polanui	Samplers (Last Name, 1st Initial)	Y. Mayon N. Sampson			
Session	95					
Date	10/13/2021					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
PFF211013-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH211013-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	
PLT211013-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO211013-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:33	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP211013-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

		<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:
	Natei Sampson

Team	R2RN	Samplers (Last Name, 1st Initial)	B. Hutchings, L Sampson, N.						Meters and Probes ID		
Session	95		Changed salinity values to correct for error in salinity probe calibration. 1.5 ppt was subtracted from each measured value. QA						HQ40d: 2	2100Q: NB3BF	
Date	10/14/2021								pH: 6	DO: 4	Salinity: 4

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 RHL211014	N	7:50	25.5	36.3 34.8	6.02	90.1	8.18	0.69	0.85	0.79	0	4	0
Onealoa Bay RON211014	N	8:25	25.8	37.0 35.5	6.72	101.8	8.22	1.20	1.29	1.17	0	4	0
Kapalua Bay RFS211014	N	8:49	25.8	36.0 34.5	6.52	98.1	8.13	1.94	1.89	2.01	154	45	0
Ka'opala Bay RKO211014	N	9:17	24.0	36.6 35.1	6.28	95.0	8.14	9.04	9.09	9.44	0	0	0
Kahana Village RKV211014	N	9:35	25.4	36.3 34.8	6.88	102.9	8.13	12.0	12.6	11.7	0	2	0

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

RHL - calm, flat, no wind

RON - windy, rough shore break, 1 dog in & out of water

RFS - calmer, little wind

RKO - calm, turbid

RKV - calm, turb id

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

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#### CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KAL	N. Sampson
Bacteria	-	-	-

Signature (Team Lead):

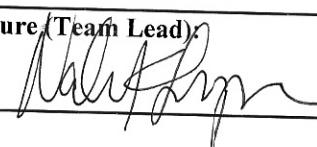
Printed Name:

Natalie Sampson

Team	R2RN	Samplers (Last Name, 1st Initial)	Hutchings, L. Sampson, N.			
Session	95					
Date	10/14/2021					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RHL211014-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON211014-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS211014-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:49	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO211014-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:17	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV211014-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	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: **Natei Sampson**