

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

Session No:	Verifiers (pre-sampling):			Pre Date:	Pre Time:	Verifiers (post-sampling):			Post Date:	Post Time:
92	M.Beezon, N.Sampson			8/9/21 8/9/21	9:10	M.Beezon, N.Sampson			8/12/21	10:25
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 <u>28.3 °C</u>	NIST <u>27.8 °C</u>	NIST <u>30.3 °C</u>	NIST <u>29.8 °C</u>	± 0.6 °C of NIST	Compare to NIST Std value in tap water
	1	3	7/2021		27.9		29.7			
	1	4			27.5		29.3			
Salinity			<u>3 months</u>	Std Val	Tap water <u>09/25 date</u> <u>35.0 ppt</u>	Salin Std <u>09/25 date</u> <u>35.0 ppt</u>	Tap water <u>09/25 date</u> <u>35.0 ppt</u>	Salin Std <u>09/25 date</u> <u>35.0 ppt</u>	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	1	3	6/28/21		0.39	35.0	0.41	34.7	35.0 MB	re-did this one because solution spilled after the 1st reading + we wanted to use the same solution for both probes
	1	4	6/28/21		0.40	35.2	0.41	35.2		
Dissolved Oxygen			<u>1 year</u>	Std Val	100%		100%		± 5 %	
	1	1	9/28/21		97.7		97.1			
	1	4	8/12/21 9/28/21		99.3		98.8			NEW DO probe named #4 - there is no #3
pH			<u>3 weeks</u>	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
	1	5	8/9/21		7.00	9.97	7.02	9.99		
	1	6	8/9/21		7.01	9.99	7.03	9.98		
Turbidity			<u>3 months</u>	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
	1	n/a	6/28/21		0.08	5.72	0.07	5.71	Low: 5.71	Std #1: 6.60 NTU; Std #2: 6.39 NTU
	NBBF	n/a	6/28/21		0.08	6.05	—	—	Low: 6.05	Turbidity Calibration Std Expire: August 2021

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

Lab: DHS
Lab: KAL

* Verifying both multimeter sets since #2 was accidentally used on Wednesday.

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	FICCIERG, T.	Kranberg, J.					Meters and Probes ID			
Session	92		Mayen, Y.						HQ40d:	1	2100Q:	1
Date	8/10/2021		Gallagher, C.						pH:	5	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 RNS210810	N	8:14 AM	25.5	34.0	6.77	100.1	8.05	1.21	1.61	1.70	0	5	NA
Pohaku RPO210810	N	8:40	25.6	33.9	6.31	93.3	8.10	4.95	4.25	4.14	4	3	NA
Kaanapali Sh RKS210810	N	8:59	23.6	35.0	6.46	96.2	8.06	3.56	4.09	3.41	2	22	NA
Kahekili Beach Two RKT210810	N	9:20	26.2	35.1	6.38	96.0	8.08	1.77	1.64	1.61	0	3	NA
Canoe Beach RCB210810	N	9:40	26.4	34.4	6.54	98.4	8.12	3.75	4.02	4.30	5	2	NA
Wahikuli RWA210810	N	9:55	26.3	34.7	6.49	97.7	8.13	2.13	2.44	2.15	0	0	NA

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).

Use the back of the form if needed.

RNS - CALM,
RPO - small swell.
RKS - CALM - LOW TIDE
RCB - LIFEGUARD TRAINING. pH SENSIT SLOW
TO STABALIZE

pH values creep up w/ multiple readings
RWA - took multiple pH readings - started @ 8.09,
crept up to 8.13 after about 8 readings (last ~3 were 8.13)

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	0.08	5.71	59.1	632
Pre-sampling	0.08	5.79	58.8	642
Post-sampling	0.05	5.83 ^{MS} 5.65	59.0	627

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	0	KAL	M. Beeson
Bacteria	-	-	-

Signature (Team Lead):

mBeeson

Printed Name:

Meredith Beeson

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	Freiburg, T.	Kranberg, J.
Session	92		Mayan, Y.	
Date	8/10/2021		Gallagher, C.	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS210810-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:14	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO210810-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	
RKS210810-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:59	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT210810-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB210810-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA210810-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:55	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):

M. Benson

Printed Name:

Meredith Benson

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	HARRIS, K GUND, K					Meters and Probes ID				
Session	92							HQ40d: Y2		2100Q: 1		
Date	8/11/2021							pH: 5	DO: X4	Salinity: 34	N/A	

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 PFF210811	Y	8:15	26.7	35.4	6.22	94.5	8.04	3.51	3.64	3.55	0	3	0
Lindsey Hale PLH210811	N	8:40	27.0	35.3	6.30	96.4	8.06	7.02	7.08 7.25	7.29	0	5	0
Lahaina Town PLT210811	N	8:58	21.7	35.5	6.38	98.1	8.07	2.92	3.05	3.13	1 dog	1	0
Camp Olowalu OCO210811	N	9:27	27.9	35.7	6.20	96.4	8.02	5.18 5.58	4.84	4.28	0	0	0
Papalaua Pali OPP210811	N	9:47	27.6	35.5	6.42	99.4	8.10	6.24	6.49	6.42	7	0	0

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

PFF stream flowing straight

* Volunteers used the wrong multimeter set. Didn't seem to have an issue w/ pH
Sites with potential for freshwater flow: 505 Front St. Probe #5

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.05	5.71	59.1	632
Pre-sampling	0.06	5.69	58.9	634
Post-sampling	0.05	5.72	58.9	636

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Nalei Sampson

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	Harris, K. Gund, K.			
Session	92					
Date	08/11/21					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF210811-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	
PLH210811-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT210811-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO210811-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:27	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP210811-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:

Nalei Sampson

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RN	Samplers (Last Name, 1st Initial)							Meters and Probes ID		
Session	92								HQ40d:	1	2100Q: 1
Date	8/12/2021								pH:	6	DO: \ 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 RHL210812	N	7:59	25.0	34.6	6.08	89.4	8.13	1.11	1.21	1.18	3	2	Ø
Oneoia Bay RON210812	N	8:31	25.7	35.3	6.56	98.2	8.15	0.67	0.64	0.64	1	2	Ø
Kapalua Bay RFS210812	N	8:53	26.1	35.1	6.33	95.6	8.01	3.13	2.92	2.98	9	23	Ø
Ka'opala Bay RKO210812	N	8:20	25.7	34.8	6.22	93.0	8.07	5.98	5.79	5.82	Ø	3	Ø
Kahana Village RKV210812	N	9:40	26.2	34.2	5.72	85.7	8.06	8.91	8.51	8.90	1	1	Ø

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).

Use the back of the form if needed.

RHL - local said stream was flowing yesterday.

RKO - very calm, lower tide, slightly murky

RKV - little fish near sampling area

- ~~double~~ triple checked D.O.

RFS - triple checked pH... got 8.01 all three times

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	5.71	59.1	632
Pre-sampling	0.07	5.61	58.6	636
Post-sampling	0.07	5.75	58.9	631

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KAL	M.Beezon
Bacteria	-	-	-

Signature (Team Lead):

MB

Printed Name:

Meredith Beezon

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

Team	R2RN	Samplers (Last Name, 1st Initial)	Buseon, M. Berg, L.			
Session	92					
Date	8/12/2021					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL210812-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:59	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON210812-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:31	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS210812-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:53	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO210812-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV210812-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	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):

mb

Printed Name:

Meredith Besson