

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
109	M. Beeson	8/15/22	7:45am	L. Yannell	8/18/22	11:40

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 28.4 °C	NIST 28.1 °C	NIST 28.0 °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water
	4	4	8/17/22		28.3		27.9		
	4	3	8/17/22		28.0		—		
Salinity			3 months	Std Val	Tap water 11/17/22 date 33.9 ppt	Tap water 11/17/22 date 33.9 ppt	Salin Std ✓ 1/22 date 33.9 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	4	4	5/23/22		0.03	33.7	0.03	33.9	
	4	3	5/23/22		0.03	33.7	33.8	—	
Dissolved Oxygen			1 year	Std Val	100%	100%	± 5 %		
	4	4	8/15/22		101.3	101.6		calibrated today	
	4	1	2/17/22		99.2	—		was having issues last session recalibrating next session	
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value
	4	6	8/15/22		7.00	9.97	7.00	9.96	
	4	7	8/15/22		7.01	9.97	—	—	
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 5.72 NTU	BLANK <0.1	LOW 1-10 5.72 NTU	± 0.18 NTU Low 1-10
	1	n/a	7/4/22		0.06	5.72 *	0.09	5.71	TOOK a few tries to get it this close
	—	n/a	—		—	—	—	—	NBBF retired

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

Lab: KAL-2

Team	R2RS
Session	109
Date	08/16/2022

Samplers
(Last Name,
1st Initial)Kranberg, J
Freiberg, TFloyd, M
Bieser, S

Yannell, L.

Meters and Probes ID

HQ2200: 4

2100Q: 1

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 RNS220816	N	8:10	26.8	35.2	6.57	100.0	8.15	1.82	2.01	JK 257.2.14	3
Pohaku RPO220816	N	8:30	26.9	34.8	6.15	93.4	8.14	1.68 2.17 EY	1.60	1.53	1
Kaanapali Sh RKS220816	N	8:51	26.9	35.3	6.23	94.8	8.07	2.28	2.61	2.31	9
Kahekili Beach Two RKT220816	N	9:12	27.6	35.6	6.83	105.2	8.18	*	0.67	0.75	3
Canoe Beach RCB220816	N	9:38	27.9	35.2	6.55	101.2	8.17	5.97	6.61	6.15	2
Wahikuli RWA220816	N	9:52	27.7	35.0	6.52	100.6	8.17	1.88	1.78	1.84	0
									4	2	0

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

RNS: Mid-tide, small rolling shorebreak, 4th turbidity reading
 RPO: Clear, small rolling shorebreak, 4th turbidity reading
 RKS: Clear, calm, no wind/clouds
 RKT: Calm, minimal swells.

- Noticed DO was high, confirmed with 2nd read = consistent
- Hot and sunny

RCB: slightly larger shorebreak ~2-3'
 - stagnant smell in parking lot/beach

Turbidity meter shut off working okay spontaneously but is
 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	5.72	57.0	598
Pre-sampling	0.06	5.62	57.7	605
Post-sampling	0.06	5.67	57.1	596

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	KAL-2	Liz Yannell
Bacteria	-	-	-

Signature (Team Lead):

Liz Yannell

Printed Name:

Liz Yannell

Team	R2RS	Samplers (Last Name, 1st Initial)	Kranberg, J.	Brieser, S.
Session	109		Frieborg, T.	Yannell, L.
Date	08/16/22		Floyd, M.	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS220816-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO220816-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS220816-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:51	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT220816-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB220816-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA220816-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:52	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:

Team	Polanui	Samplers (Last Name, 1st Initial)	GONZALEZ, T GLEND, K						Meters and Probes ID			
Session	109								HQ2200:	4	2100Q:	1
Date	08/17/2022								pH:	6	DO:	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 PFF220817	Y	8:13	26.8	35.4	5.84	88.8	8.10	1.46	1.35	1.35	∅
Lindsey Hale PLH220817	N	8:34	26.8	35.4	6.26	95.2	8.09	18.9	19.4	18.5	2
Lahaina Town PLT220817	N	8:54	27.4	34.8	5.56	85.0	8.06	14.6	13.7	14.2	5
Camp Olowalu OCO220817	N	9:35	28.2	35.8	6.15	95.9	8.06	4.05	4.03	4.14	∅
Papalaua Pali OPP220817	N	9:48	28.1	35.8	6.31	98.3	8.10	6.11 kg 5.50 6.59	5.15	5.15	∅
									2	2	∅

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

Use the back of the form if needed.

PFF - strong shore break, departing canoe w/ 3 ppn.

PLH - SWITCHED FILTER MID PLUNGE ON SYRINGE

↓ - VERY SILTY/SANDY WATER NEAR SHORE

PLT - 2 SURF'S WALKING OUT IN WATER JUST PRIOR
↓ TO SAMPLING.

OPP - FILTER GETS MORE DIFFICULT @ 1/2 WAY

OPP - 4th turbidity taken

* Could not get low turb. standard to read higher

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	5.72	57.0	598
Pre-sampling	0.05	5.83	58.3	602
Post-sampling	0.08	5.63	56.8	596

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KAL-2	M. Beeson
Bacteria	-	-	-

Signature (Team Lead):

MFB

Printed Name:

Meredith Beeson

Team	Polanui	Samplers (Last Name, 1st Initial)	Gund, K.			
Session	109		Gonzales, T.			
Date	08/17/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF220817-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH220817-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:34	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT220817-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:54	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO220817-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP220817-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:48	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:
	Meredith Borison

Team	R2RN	Samplers (Last Name, 1st Initial)	Berg, L. Hutchings, L.	Yannell, L. Hehemann, C.	Meters and Probes ID					
Session	109				HQ2200: 4		2100Q: 1			
Date	08/18/22				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 RHL220818	N	8:00	26.3	35.3	6.06	91.3	8.14	1.09	1.44 120 ^{LH}	1.26	50 ^{LH}
Onealoa Bay RON220818	N	8:34	26.7	35.7	6.71	102.6	8.14	1.75	1.78	1.84	4
Kapalua Bay RFS220818	N	8:58	27.4	35.6	6.38	98.2	8.10	1.44	1.57	1.71	28
Ka'opala Bay RKO220818	N	9:24	27.2	35.6	6.25	95.9	8.10	6.60	6.07 7.04 ^{LH}	6.15	1
Kahana Village RKV220818	N	9:50	27.6	35.6	6.16	94.1	8.08	7.67	6.95	7.13	2

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

Use the back of the form if needed.

RHL - 4th turbidity reading 1.51. Glass vial wet after it was taken out of hatch.

RKO - 4th turbidity reading

RKV - difficult to see potential freshwater because of road construction but locals say no rain

POST-Sample: 1st low post-sample turbidity read = 5.59, 2nd = 5.71 NTU

1st post-turbidity blank = 0.13 NTU

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

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.08	5.72	57.0	598
Pre-sampling	0.10	5.74	57.4	599
Post-sampling	0.09	5.71	57.1	595

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KAL-2	Liz Yannell
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Team	R2RN	Samplers (Last Name, 1st Initial)	L. Yannell	C. Hehemann
Session	109		L. Berg	
Date	08/18/22		L. Hutchlings	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL220818-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON220818-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:34	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS220818-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO220818-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:24	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV220818-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50	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