

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
84	G. Silver, M. Beeson	2/22/21	10:20	G. Silver	2/25/21	

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST SM	n/a	n/a	Std Val	NIST 24.8 °C	NIST 24.9 °C	NIST 24.6 °C	NIST — °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	SM ¹	3	n/a		24.6		24.3				
	SM ¹	2	n/a			24.8					
Salinity			3 months	Std Val	Tap water	Salin Std 8-24 date 35.0 ppt	Tap water	Salin Std 8-24 date 35.0 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	3	11/30/20		0.3	35.2	0.31	35.0			
	1	2	11/30/20		0.3	35.3	—	—			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	9/28/20		98.2		98.9				
	1	2	9/8/20		100.5		—				
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	
	1	5	2/22/21		7.01	9.98	7.01	9.99			
	1	6	2/22/21		7.02	9.99	—	—			
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	
	1	n/a	11/30/20		0.08	5.67	0.09	5.66		Low: 5.68 Med: 57.9 High: 608	
	NBBF	n/a	11/30/20		0.08	5.77	—	—		Low: 5.79 Med: 58.6 High: 593	

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

Lab: KAL

Team	R2RS	Samplers (Last Name, 1st Initial)	G. Silver M. Beeson Gallagher, C. Kranberg, J.	Meters and Probes ID		
Session	84			HQ40d: 1	2100Q: 1	
Date	02/23/2021			pH: 5	DO: 1	Salinity: 3

Location Name Sample ID	Streams 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 RNS210223	N	8:20	24.2	34.1	6.60	95.4	8.07	1.42	1.34	1.43	0	5	0
Pohaku RPO210223	N	8:44	24.2	33.7	6.42	92.6	8.11	2.85	2.61	2.50	0	0	0
Kaanapali Shores RKS210223	N	9:05	23.5	34.5	6.72	96.3	8.10	1.48	1.83	1.49	1	3	0
Kahekili Beach Two RKT210223	N	9:21	24.2	34.9	6.71	97.5	8.17	0.98	1.02	1.00	0	7	0
Canoe Beach RCB210223	N	9:43	25.0	32.8	6.90	100.4	8.18	1.13	1.04 MB 1.48	1.17	0	10	0
Wahikuli RWA210223	N	10:01	25.1	33.6	6.68	97.9	8.16	1.51	1.51 GS 1.32	1.41	0	1	0

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

Pre-sampling: turbidity not < 0.11 (0.14, 0.15) DI water
replaced & still reading high.

RNS- Waves breaking @ shore, 1-2 ft.

RPO - 2.81 = 4th turb reading

RKS - Water is a bit choppy, windy, 4th turb = 1.89 NTU

RKT - two people fishing, little wave action

RCB - sunny, waves are < 1'

RWA - small waves, sunny

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	5.68	57.9	608
Pre-sampling	0.11	5.89	57.6	609
Post-sampling	0.09	5.96	57.7	607

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	KAL	G. Silver
Bacteria	-	-	-

Signature (Team Lead):

Grace Silver

Printed Name:

Grace Silver

Lab: KAL

Team	R2RS	Samplers (Last Name, 1st Initial)	G. Silver J. Kranberg M. Beeson G. Gallagher
Session	84		
Date	02/23/2021		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
RNS210223-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO210223-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:44	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS210223-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	
RKT210223-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:21	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB210223-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:43	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA210223-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:01	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:

Grace Silver

Team	Polanui	Samplers (Last Name, 1st Initial)	GUND, K HARRIS, K BEESON, M	Meters and Probes ID		
Session	84			HQ40d: 1	2100Q: 1	
Date	02/24/2021			pH: 5	DO: 1	Salinity: 3

Location Name Sample ID	Streams 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 PFF210224	Y	8:13am	24.4	33.9	6.06	87.9	8.09	6.23	6.04	6.16	1	2	Ø
Lindsey Hale PLH210224	N	8:37am	24.4	33.4	5.86	84.8	8.08	5.13	5.40	5.19	Ø	2	Ø
Lahaina Town PLT210224	N/A	8:57am	24.6	33.4	5.84	85.0	8.07	7.79	7.40	7.95	6	+3 ^{KG}	Ø
Camp Oluwala OCO210224	N/A	9:26am	24.1	34.7	6.49	94.1	8.10	1.66	^{1.57 KG} 2.06	1.52	Ø	Ø	Ø
Papalaua Pali OPP210224	N	9:45am	24.8	34.8	6.84	100.4	8.16	6.05	6.18	6.27	Ø	Ø	Ø

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

Use the back of the form if needed.

LINDSEY HALE 1ST STOP - "STREAM" CARVED OUT
BY SURF - IT'S NORMALLY BURIED BY SAND,
NO FLOW TODAY.

LAHAINA TOWN HAD A KAYAK & SUP CLASS
IN PROGRESS - 6 PEOPLE 3 KAYAKS 1 SUP
+ 4TH TURBIDITY 7.22

could not get blank < 0.10 NTU

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.09	5.68	57.9	608
Pre-sampling	0.10	5.67	57.7	610
Post-sampling	0.09	5.63	58.0	609

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

M. Beeson

Printed Name:

Meredith Beeson

Lab: KAL

Team	Polanui	Samplers (Last Name, 1st Initial)	K. Gund K. Harris M. Beeson
Session	84		
Date	02/24/2021		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
PFF210224-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	
PLH210224-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:37	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT210224-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:57	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO210224-N-1	Camp Oluwalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP210224-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:45	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): Grace Silver	Printed Name: Grace Silver
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Lab: KAL

Team	R2RN	Samplers (Last Name, 1st Initial)	L. Hutchings C. Heheman L. Berg G. Silver	Meters and Probes ID		
Session	84			HQ40d: 1	2100Q: 1	
Date	02/25/2021			pH: 5	DO: 1	Salinity: 3

Location Name Sample ID	Streams 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 RHL210225	N	8:00 A	23.3	34.6	6.38	91.2	8.13	2.41 GS 2.64	2.02	2.00	0	0	0
Oneloa Bay RON210225	N	8:35 A	24.1	34.9	6.80	98.9	8.16	1.22 2.44	1.22 1.78	1.32 1.32	4	0	0
Kapalua Bay RFS210225	N	8:55 A	23.9	34.3	6.64	95.9	8.11	1.87	1.80	1.84	5	9	0
Ka'opala Bay RKO210225	N	9:20	23.8	34.2	6.60	95.0	8.10	6.41	6.30	6.36	0	0	0
Kahana Village RKV210225	N	9:35	24.0	33.9	6.94	99.9	8.16	6.69	8.47	7.07	2	3	0

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

Use the back of the form if needed.

RON - Waves 2-3' & surfers in water, windy

RFS - Few people snorkeling in water, sunny & calm

RKO - No people/high tide/no visible stream water, except sand bags to the south that look new

RKV - Organic matter in turb. bottle, turb yth = 8.59

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CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KAL	G. Silver
Bacteria	-	-	-

Signature (Team Lead):

G. Silver

Printed Name:

Grace Silver

Lab: KAL

Team	R2RS R2RN	Samplers (Last Name, 1st Initial)	L. Hutchings C. Heheman L. Berg G. Silver
Session	84		
Date	02/25/2021		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL210225-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	
RON210225-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS210225-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO210225-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	
RKV210225-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	

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):

Grace Silver

Printed Name:

Grace Silver

Lab: KAL