

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
70	James Strickland, C Maxwell	3/9/20	9:45	C Maxwell, J Strickland	3/13/20	10:45

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST 3	n/a	n/a	Std Val	NIST 22.3°C	NIST 22.1°C	NIST 21.6°C	NIST °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	1	3	n/a		21.9		21.2				
	1	2	n/a			21.8					
Salinity			3 months	Std Val	Tap water	Salin Std 1/27/20 date 34.2 ppt	Tap water	Salin Std 1/27/20 date 34.2 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	3	1/6/20		0.04	34.1	0.04	34.2			
	1	2	1/6/20		0.04	34.2					
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	5/13/19		101.0%		102.0%				
	1	2	8/5/19		96.5%						
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	3/9/20		7.03	10.05	7.07	10.08			
	1	6	3/9/20		7.04	10.06					
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 5.59 NTU	BLANK <0.1	LOW 1-10 5.59 NTU	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	1	n/a	1/27/20		0.05	5.57	0.06	5.60			
		n/a									

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

Team	R2RS	Samplers (Last Name, 1st Initial) <i>Jarmakens, B T. Morgan. end 0930</i> <i>Kranberg, J JK 1030</i> <i>BT 1040</i>	Meters and Probes ID				
Session	70		HQ40d:	1	2100Q:	1	
Date	3/10/20		pH:	5	DO:	1	Salinity:

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 RNS200310	N	8:19	24.2	35.7	6.96	101.2	8.18	1.34	1.51	1.27	Clear sm. waves @ shore	4	0
Pohaku RPO200310	N	8:53	23.5	34.0	7.13	101.6	8.15	7.64	8.38	7.42	Clear calm @ shore	1	0
Kaanapali Sh RKS200310	N	9:15	24.1	35.3	6.97	101.1	8.18	3.15	2.70	2.41	Clear calm	4	0
Canoe Beach RCB200310	NA	9:42	25.2	34.5	6.73	99.2	8.19	.96	.95	.90	Flat surfing 100ft out	1	0
Wahikuli RWA200310	NA	10:06	24.8	34.1	6.87	100.2	8.22	1.15	1.14	1.20	Flat surfing	0	0

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

RNS - Warm, clear, few clouds, sunny
 RPO - warm, clear, surfers 60-70 yards out.
 RKS - 4 people on beach, 2 surfers 50ft. out, 2 paddle
 boarders 60-70 yards out... Sunny, clear
 RCB no waves, clear, sunny
 RWA calm, clear, sunny

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	5.59	58.7	640
Pre-sampling	0.09 0.06	5.50	58.9	638
Post-sampling	0.05	5.54	59.0	636

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	LLHS	C Maxwell
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Catherine Maxwell Catherine Maxwell

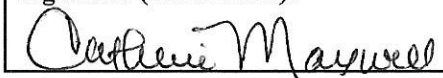
Team	R2RS	Samplers (Last Name, 1st Initial)	Jarmalcani, B Morgan, T Kranberg, J
Session	70		
Date	3/10/20		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS200310-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:19	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO200310-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:53	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS200310-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB200310-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA200310-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:06	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:


 Catherine Maxwell

Team	Polanui	Samplers (Last Name, 1st Initial)	Harris, K Bayley, R	Meters and Probes ID			
Session	70			HQ40d:	1	2100Q:	1
Date	3/11/20			pH:	5	DO:	1

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 PFF200311	Y	8:15	24.5	35.6	5.52	81.0	8.06	3.05	2.68	2.27	0	2	0
Lindsey Hale PLH200311	N	8:45	24.3	35.0	6.02	87.9	8.08	5.98	5.55	6.08	0	3	0
Lahaina Town PLT200311	—	9:04	24.8	34.7	6.10	89.6	8.08	6.99	6.19	6.39	2	3	0
Olowalu Pier OSF200311	—	9:35	25.0	35.5	6.36	94.0	8.07	2.59	2.19	2.14	0	0	0

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

Use the back of the form if needed.

DO NOT TAKE NUTRIENT SAMPLE FROM OLOWALU PIER THIS EVENT

(Will Only Be Taken Quarterly)

PFF stream still flowing ~ 30 ft to N
of straight to ocean

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	5.59	58.7	640
Pre-sampling	0.08	5.53	59.0	638
Post-sampling	0.08 ⁰⁶ JLS	5.54	59.0	637

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	3	LHS	J Strickland
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:



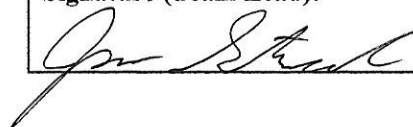
James Strickland

Team	Polanui	Samplers (Last Name, 1st Initial)	Harris, K Bayley, R
Session	70		
Date	3/11/20		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF200311-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 µm disposable filters	
PLH200311-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 µm disposable filters	
PLT200311-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:04	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 µm 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:

James Strickland

Team	Olowalu	Samplers (Last Name, 1st Initial)	ARKIN, G GLUND, K RANIERI, L	Meters and Probes ID			
Session	70			HQ40d:	1	2100Q:	1
Date	3/12/20			pH:	5	DO:	1

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
Martin Hale OPM200312	N	7:15	23.7	35.7	6.26	90.6	8.08	7.95	7.30	7.51	Ø	Ø	Ø
Camp Olowalu OCO200312	N	7:35	24.2	35.6	6.58	96.1	8.11	2.71	2.97	2.73	12 kayak	Ø 1	Ø
Ukumehame OUB200312	N	7:52	24.3	35.7	6.75	98.9	8.14	12.7	12.5	13.1	Ø	Ø	Ø
Papalaua Beach OPB200312	N	8:09	24.5 yr 35.9	35.9 yr 34.5	6.71	98.8	8.14	6.93	6.76	6.15	Ø	Ø	Ø
Papalaua Pali OPP200312	N	8:21	24.5	35.8	6.66	98.0	8.14	6.42	5.76	6.68	Ø	Ø	Ø

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

DO NOT TAKE NUTRIENT SAMPLES THIS EVENT

(Will Only Be Taken Quarterly)

Pretty Rainy morning today - misty all around

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	5.59	58.7	640
Pre-sampling	0.06	5.58	59.0	638
Post-sampling	0.06	5.58	59.1	639

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	0	N/A	N/A
Nutrients	0	N/A	N/A
Bacteria	0	N/A	N/A

Signature (Team Lead):

Printed Name:

[Signature]

James Strickland

Team	Olowalu	Samplers (Last Name, 1st Initial)	ARKIN, G GUND, K RONIERI, L
Session	70		
Date	3/12/20		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							

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:

James Strickland

Team	R2RN	Samplers (Last Name, 1st Initial) <i>Hutchings, L</i> <i>Berg, L</i> <i>Miller, T</i>	Meters and Probes ID				
Session	70		HQ40d:	1	2100Q:	1	
Date	3/13/20		pH:	5	DO:	1	Salinity:

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 RHL200313	7:50 ^{AM} 5 N		23.5	34.5	6.87	98.7%	8.11	97.3	92.7	96.9 cm	0	0	0
Oneloa Bay RON200313	—	8:25	24.3	35.8	6.96	102.1	8.18	0.80	0.96	0.88	0	0	0
Kapalua Bay RFS200313	—	8:50	24.4	35.1	6.93	101.4	8.16	3.26	2.80	3.03	4	9	0
Ka'opala Bay RKO200313	N	9:10	24.4	34.9	6.83	99.9	8.12	13.6	14.0	14.3	0	1	0
Kahana Village RKV200313	AV ^{AM}	9:25	24.6	35.0	7.03	103.1	8.16	9.76	9.20	9.16	0	0	0

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

HNL 4m Turbidity test 96.9 ft
Rough water 0
RFS 4m Turbidity test 2.57

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	5.59	58.7	640
Pre-sampling	0.07	5.49	59.0	639
Post-sampling	0.06	5.60	59.2	639

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	LLHS	C Maxwell
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Catherine Maxwell Catherine Maxwell

Team	R2RN	Samplers (Last Name, 1st Initial) Hutchings, L Berg, L Miller, T
Session	70	
Date	3/13/20	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL200313-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	
RON200313-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	
RFS200313-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	
RKO200313-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV200313-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	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:

Catherine Maxwell Catherine Maxwell