

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



Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
47	J Strickland, C Maxwell	10/29/18	10:15	J Strickland, C Maxwell	11/2/18	10:40 am

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST 2	n/a	n/a	Std Val	NIST 23.7 °C	NIST 23.4 °C	NIST 24.7 °C	NIST °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	1	3	n/a		23.6		24.5				
	1	2	n/a			23.3					
Salinity			3 months	Std Val	Tap water 0.04	Salin Std 8/28/18 date 32.6 ppt	Tap water	Salin Std 8/28/18 date 32.6 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	3	8/6/18		0.04	32.6	0.04	32.8			
	1	2	8/6/18		0.04	32.6					
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	4/2/18		99.9%		100.6%				
	1	2	8/6/18		99.6%						
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	10/29/18		7.00	10.01	7.05	10.08			
	1	6	10/29/18		7.00	10.01					
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 6.26 NTU	BLANK <0.1	LOW 1-10 6.26 NTU	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	3	n/a	8/27/18		0.04	6.32	6.05	6.38			
		n/a									

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

Team	R2RS	Samplers (Last Name, 1st Initial)	J. Freiberg James Strickland Cathy Maxwell	Meters and Probes ID			
Session	47			HQ40d:	1	2100Q:	3
Date	10/30/2018			pH:	5	DO:	1

Location Name Sample ID	Streams Flowing (Y/N)	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Napili Bay RNS181030	N	8:13	27.4	34.2	6.39	97.6	8.13	1.45	1.67	1.46	5	4	0
Pohaku RPO181030	N	8:38	27.6	34.2	6.37	97.8	8.18	7.40	7.68	7.65	0	5	0
Kaanapali Sh RKS181030	don't know	8:59	27.4	34.4	6.41	98.3	8.14	3.83	3.83	4.02	1	1	0
Canoe Beach RCB181030	don't know	9:20	27.6	34.6	6.56	100.8	8.21	2.71	2.51	2.74	0	3	0
Wahikuli RWA181030	—	9:36	27.4	34.4	6.58	100.7	8.23	3.76	3.81	3.52	0	0	0
									3.81				

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

RPO - 3 canoes in water about 100 ft out
RKS - light sprinkles of rain while sampling
RWA - strong steady winds (14-20 knots) - 3 ft waves
a high tide

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.26	55.7	604
Pre-sampling	0.10	6.34	56.8	604
Post-sampling	0.04	6.47	56.8	606

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	0	LLHS	C Maxwell
Nutrients	5	LLHS	C Maxwell
Bacteria	0	—	C Maxwell

Signature (Team Lead):

Catherine Maxwell

Printed Name:

Catherine Maxwell

Team	R2RS	Samplers (Last Name, 1st Initial)	Ty Freiberg James Strickland Cathy Maxwell
Session	47		
Date	10/30/2018		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS181030-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO181030-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS181030-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	
RCB181030-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA181030-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:36	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
Sediments							
RNS181030-S-1	Napili Bay	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RPO181030-S-1	Pohaku	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RKS181030-S-1	Kaanapali Sh	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RCB181030-S-1	Canoe Beach	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RWA181030-S-1	Wahikuli	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

Printed Name:

Catherine Maxwell

Catherine Maxwell

Team	Polanui	Samplers (Last Name, 1st Initial)	Maxwell, J; Bayley, R; Harris, K	Meters and Probes ID			
Session	47			HQ40d:	1	2100Q:	3
Date	10/31/2018			pH:	5	DO:	1

Location Name Sample ID	Streams Flowing (Y/N)	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
505 Front St PFF181031	Y	8:11	26.8	32.6	6.39	96.0	8.10	4.42	4.82	3.74	0	1	0
Lindsey Hale PLH181031	N	8:35	26.7	34.0	6.24	94.5	8.14	6.29	5.76	6.24	0	6	0
Lahaina Town PLT181031		8:52	26.7	33.1	6.20	93.2	8.13	39.1	37.7	39.7	0	0	0
Olowalu Pier OSF181031		9:23	27.0	34.3	6.36	96.9	8.11	3.30	2.74	3.06	0	0	0

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

Use the back of the form if needed.

Drainage by PLH was more than 3/4 filled with large sticks + debris* see photos. (the water in the pics is from high tide)

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.26	55.7	604
Pre-sampling	0.07	6.33	56.6	606
Post-sampling	0.04	6.34	56.8	606

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	0	—	J. Strickland
Nutrients	5	LLHS	J. Strickland
Bacteria	0	—	J. Strickland

Signature (Team Lead):

Printed Name:

James Strickland James Strickland

Team	Polanui	Samplers (Last Name, 1st Initial) MAXWELL, J ; BAYLEY, R ; HARRIS, K
Session	47	
Date	10/31/2018	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF181031-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:11	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH181031-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT181031-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OSF181031-N-1	Olowalu Pier	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:03	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
		<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
Sediments							
PFF181031-S-1	505 Front St	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
PLH181031-S-1	Lindsey Hale	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
PLT181031-S-1	Lahaina Town	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
OSF181031-S-1	Olowalu Pier	<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) NOPONEN, R OTONGA GRIFFOUL, M	Meters and Probes ID				
Session	47		HQ40d:	1	2100Q:	3	
Date	11/1/2018		pH:	5	DO:	1	Salinity:

Location Name Sample ID	Streams Flowing (Y/N)	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Martin Hale OPM181101	N	0713	26.8	34.5	5.51	83.7	8.03	1.36	2.36	2.47	0	0	0
Camp Olowalu OCO181101	N	0724	27.5	34.4	5.80	89.1	8.08	3.76	3.72	3.49	0	0	0
Ukumehame OUB181101	N	0740	27.2	34.5	6.43	98.3	8.13	23.3	24.5	23.6	1	1	0
Papalaua Beach OPB181101	N	0754	27.0	34.4	6.60	100.5	8.11	7.67	8.44	7.29	0	0	0
Papalaua Pali OPP181101	N	0802	27.3	34.4	6.45	98.6	8.13	8.06	8.45	8.45	2	2	0

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

Use the back of the form if needed.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.26	55.7	604
Pre-sampling	0.05	6.43	57.0	605
Post-sampling	0.08	6.36	56.7	604

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	0	/	J. Strickland
Nutrients	5	LHS	J. Strickland
Bacteria	0	/	J. Strickland

Signature (Team Lead):

Printed Name:

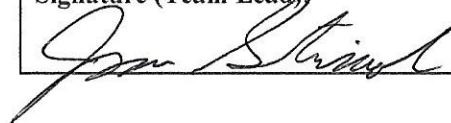
James Strickland James Strickland

Team	Olowalu	Samplers (Last Name, 1st Initial)	NOPONEN, R OTOMO, L CUFFAW, M
Session	47		
Date	11/1/2018		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
OPM181101-N-1	Martin Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO181101-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:24	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OUB181101-N-1	Ukumehame	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPB181101-N-1	Papalaua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:54	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP181101-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
Sediments							
OPM181101-S-1	Martin Hale	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
OCO181101-S-1	Camp Olowalu	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
OUB181101-S-1	Ukumehame	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
OPB181101-S-1	Papalaua Beach	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
OPP181101-S-1	Papalaua Pali	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead)

Printed Name:



James Strickland

C Team	R2RN	Samplers (Last Name, 1st Initial)	Hutchings, L Bunker, B Stone, A Heinemann, C	Meters and Probes ID			
Session	47			HQ40d:	1	2100Q:	3
Date	11/02/2018			pH:	5	DO:	1

Location Name Sample ID	Streams Flowing (Y/N)	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Honolua Bay RHL181102	Y	7:50A	26.1	33.5	5.79	96.1	8.12	32.6	32.1	33.8	0	0	0
Oneloa Bay RON181102	N	8:30A	26.5	34.4	4.71	101.3	8.21	0.55	0.49	0.53	5	6	0
Kapalua Bay RFS181102		09:00	27.5	34.0	6.16	94.1	8.16	0.83	0.90	0.92	12	34	0
Ka'opala Bay RKO181102	N	9:25A	27.0	33.7	6.47	97.8	8.18	14.6	14.7	14.1	0	0	6
Kahana Village RKV181102		9:50A	27.2	33.9	6.36	96.9	8.15	25.2	21.9	24.8	2	9	6

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

RHL - Brown water, debris

RFS - Super calm, no waves

RKO: - After filtering #1st sample, took second sample to fill as first one got spilled.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	6.26	55.7	604
Pre-sampling	0.04	6.38	56.7	606
Post-sampling	0.05	6.38	57.1	606

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	0	/	J. Strickland
Nutrients	5	LHS	J. Strickland
Bacteria	0	/	J. Strickland

Signature (Team Lead):

Printed Name:

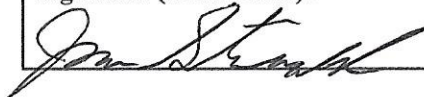


James Strickland

Team	R2RN	Samplers (Last Name, 1st Initial)	HUTCHINGS, L BANKER, B STONE, A HENG MANN, C
Session	47		
Date	11/02/2018		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL181102-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	26.9 7:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON181102-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS181102-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO181102-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV181102-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							
RHL181102-S-1	Honolua Bay	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RON181102-S-1	Oneloa Bay	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RFS181102-S-1	Kapalua Bay	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RKO181102-S-1	Ka'opala Bay	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RKV181102-S-1	Kahana Village	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):



Printed Name:

James Strickland