

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
51	Streckland, J., Maxwell, C.	1/28/19	8am	Maxwell, C., Streckland, J.	2/1/19	11:20

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 21.0 °C	NIST 20.9 °C	NIST 21.8 °C	NIST °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	1	3	n/a		20.8		21.5				
	1	2	n/a			20.8					
Salinity			3 months	Std Val	Tap water	Salin Std 11/19 date 33.1 ppt	Tap water	Salin Std 11/26/18 date 35.0 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	3	11/26/18		0.04	33.2	0.03	33.6			
	1	2	11/26/18		0.04	33.1					
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	4/2/18		99.7		100.8				
	1	2	8/6/18		99.5						
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	1/28/19		7.00	10.01	7.05	10.08			
	1	6	1/28/19		7.00	10.01					
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 5.69 NTU	BLANK <0.1	LOW 1-10 5.69 NTU	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	1	n/a	1/28/19		0.04	5.69	0.08	5.65			
		n/a									

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

Team	R2RS	Samplers (Last Name, 1st Initial) Freiberg, T Jarmakani, B Maxwell, C Garfield, E	Meters and Probes ID				
Session	51		HQ40d:	1	2100Q:	1	
Date	1/29/2019		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
Napili Bay RNS190129	N	8:02	22.6	34.7	7.03	99.2%	8.20	1.23	1.18	1.24	0	0	0
Pohaku RPO190129	N	8:26	21.7	33.5	7.15	98.8%	8.17	10.6	12.4	11.5	0	0	0
Kaanapali Sh RKS190129	—	8:50	21.8	34.6	7.10 6.99	98.9%	8.18	5.49	5.41	5.43	0	2	0
Canoe Beach RCB190129	—	9:13	23.6	34.5	6.77	97.3%	8.23	1.45	1.98	1.55	0	0	0
Wahikuli RWA190129	—	9:33	23.5	33.4	6.90	98.4%	8.24	0.92	1.0	0.92	0	2	0

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

Use the back of the form if needed.

RNS- 50% clouds, ^{very} windy, large swell 3ft on shore

RPO- 90% clouds, waves 3ft

RKS- cloudy, > 50% cloudy, freq 3ft swell, ^{very} windy, small area of sand next to sand bags - 8 people in water. few sprinkles of rain.

RCB- light rain ~ sun, 80% clouds, no waves, no canoes out in water

RWA- water totally flat, rainy.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	5.69	58.6	627
Pre-sampling	0.06	5.64	58.6	625
Post-sampling	0.08	5.59	58.5	625

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	0		Cathy Maxwell
Nutrients	5	LHS	Cathy Maxwell
Bacteria	0		Cathy Maxwell

Signature (Team Lead):

Catherine Maxwell

Printed Name:

Catherine Maxwell

Team	R2RS	Samplers (Last Name, 1st Initial) Freiberg, T Jarmakani, B Maxwell, C Garfield, E
Session	51	
Date	1/29/2019	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS190129-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO190129-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS190129-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB190129-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA190129-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:33	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
Sediments							
RNS190129-S-1	Napili Bay	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RPO190129-S-1	Pohaku	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RKS190129-S-1	Kaanapali Sh	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RCB190129-S-1	Canoe Beach	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RWA190129-S-1	Wahikuli	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

Printed Name:

Catherine Maxwell

Catherine Maxwell

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	Maxwell, J Bayley, R Harris, R	Meters and Probes ID		
Session	51			HQ40d: 1	2100Q: 1	
Date	1/30/2019			pH: 5	DO: 1	Salinity: 3

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 PFF190130	Y	8:10	22.6	34.2	6.61	93.3	8.13	1.92	1.67	1.58	0	2	0
Lindsey Hale PLH190130	N	8:30	22.4 34.0 ^{ψ*}	22.4 ^{KH} 34.0 ^{KH}	6.47	90.9	8.14	4.13	4.28	3.89	5	2	0
Lahaina Town PLT190130		8:50	22.2	33.8	6.50	90.9	8.16	3.78	3.68	3.03	5	0	0
Olowalu Pier OSF190130		9:17	23.6	34.5	6.32	90.9	8.12	1.60	1.66	1.72	0	0	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	0.08	5.69	58.6	627
Pre-sampling	0.08	5.83	58.6	626
Post-sampling	0.06	5.61	58.6	624

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment			
Nutrients	4	LHS	J. Strickland
Bacteria			

Signature (Team Lead):

Printed Name:

James Strickland

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	J. MAXWELL K. HARRIS R. DALY
Session	51		
Date	1/30/2019		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF190130-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH190130-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT190130-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	
OSF190130-N-1	Olowalu Pier	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:17	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

Printed Name:


James Strickland

Team	Olowalu	Samplers (Last Name, 1st Initial) NOPONEN, R OTOMO, L RANIERI, L	Meters and Probes ID		
Session	51		HQ40d: ~ 1	2100Q: - 1	
Date	1/31/2019		pH: 5	DO: 1	Salinity: 3

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 OPM190131	N	0710	23.0	34.3	5.80	82.5	8.08	2.22	2.21	2.04	0	10	0
Camp Olowalu OCO190131	N	0727	23.6	34.7	6.46	93.1	8.16	1.50	1.42	1.70	0	10	0
Ukumehame OUB190131	N	0743	22.9	34.5	6.72	95.6	8.18	2.02	2.23	2.20	0	0	0
Papalaua Beach OPB190131	N	0755	23.1	34.4	6.69	95.4	8.17	3.05	3.82	3.65	1	0	0
Papalaua Pali OPP190131	N	0810	23.4	34.6	6.60	94.9	8.17	1.50	1.51	1.78	0	1	2

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

light drizzle encountered, lid for
bucket used

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	5.69	58.6	627
Pre-sampling	0.07	5.69	58.9	630
Post-sampling	0.06	6.07	59.4	630

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment			
Nutrients	5	L145	J. Strickland
Bacteria			

Signature (Team Lead):



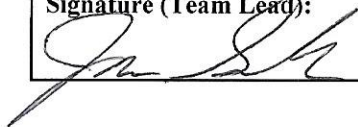
Printed Name:

James Strickland

Team	Olowalu	Samplers (Last Name, 1st Initial) R. NOPONEN L. Ranieri L. OTOMO
Session	51	
Date	1/31/2019	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
OPM190131-N-1	Martin Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO190131-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:27	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OUB190131-N-1	Ukumehame	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:43	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPB190131-N-1	Papalaua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP190131-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):



Printed Name:

James Strickland

Team	R2RN	Samplers (Last Name, 1st Initial) Hutchings, L Bunker, B Hehemann, C	Meters and Probes ID				
Session	51		HQ40d:	1	2100Q:	1	
Date	2/1/2019		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
Honolua Bay RHL190201	Y	7:50A	22.1	25.3	7.22	95.8	8.18	110	104	107	0	0	0
Oneloa Bay RON190201	N	8:40A	23.5	34.8	7.00	100.9	8.21	2.59 1.74	1.74	1.45	0	10	0
Kapalua Bay RFS190201	N	9:15A	24.1	34.2	7.16	103.7	8.21	5.05	5.55	5.25	0	32	0
Ka'opala Bay RKO190201	N	9:40A	23.3	33.1	7.06	100.2	8.17	24.6	24.9	24.5	0	0	0
Kahana Village RKV190201	N	10:05A	23.7	33.7	7.07	101.3	8.21	18.8	19.2	20.1	2	9	0

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

Use the back of the form if needed.

RKO % =
100.2%

* Syringes feel as if they are
working better

RHL - Bruce needed to remove filter
to remove ^{mostly} leaves during process.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	5.69	58.6	627
Pre-sampling	0.08	5.64	59.0	626
Post-sampling	0.08	5.65	58.9	624

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):



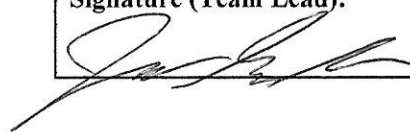
Printed Name:

James Strickland

Team	R2RN	Samplers (Last Name, 1st Initial) Hutchings, L Banker, B Hagemann, C
Session	51	
Date	2/1/2019	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL190201-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	
RON190201-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS190201-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO190201-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV190201-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
Sediments							
RHL190201-S-1	Honolua Bay	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RON190201-S-1	Oneloa Bay	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RFS190201-S-1	Kapalua Bay	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RKO190201-S-1	Ka'opala Bay	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
RKV190201-S-1	Kahana Village	<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):



Printed Name:

James Strickland