

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



Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
73	J. STRICKLAND	7/6/20	1:50pm	J. Strickland	7/10/20	11:00

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST	n/a	n/a	Std Val	NIST	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
					33.5°C	33.1°C	30.8°C	°C			
	1	3	n/a		33.0		30.3				
	1	1	n/a			32.4					
Salinity			3 months	Std Val	Tap water	Salin Std date	Tap water	Salin Std date	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
						1/27/20 date		1/27/20 date			
						34.3 ppt		34.2 ppt			
	1	3	6/15/20		0.60	34.6	0.61	34.7			
	1	1			0.55	33.2					
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1(wm)			101.3		101.4			wm Probe	
	1	1(sm)			97.3					sm Probe	
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	7/6/20		7.02	9.95	7.02	9.99			
	1	3	7/6/20		7.00	9.97	7.02				
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10	BLANK <0.1	LOW 1-10	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
						5.45 NTU		5.45 NTU			
	1	n/a	6/15/20		0.07	5.4%	0.08	5.40			
		n/a									

QA:

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

Team	R2RS	Samplers (Last Name, 1st Initial)	Strickland, J	Meters and Probes ID			
Session	73			HQ40d:	1	2100Q:	1
Date	7/7/2020			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
Napili Bay RNS200707	N	8:05	26.3	35.6	6.58	99.5	8.08	3.90	3.91	3.76	1	0	0
Pohaku RPO200707	N	8:39	26.1	31.5	6.74	99.4	8.14	1.80	1.39	1.71	0	0	0
Kaanapali Sh RKS200707	N	9:10	26.0	36.6	6.37	96.4	8.11	2.03	2.22	2.00	0	0	0
Canoe Beach RCB200707	N	9:40	26.8	34.9	6.80	103.3	8.17	6.76	6.96	6.66	0	0	0
Wahikuli RWA200707	N	9:58	26.5	34.9	6.76	102.1	8.18	1.84	1.55	1.56	0	3	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	5.45	56.2	591
Pre-sampling	0.07	5.42	56.0	590
Post-sampling	0.08	5.47	56.2	589

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

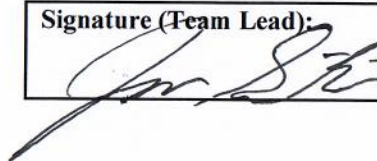

 James Strickland

Team	R2RS	Samplers (Last Name, 1st Initial)	Strickland, J
Session	73		
Date	7/7/2020		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS200707-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO200707-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:39	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS200707-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB200707-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA200707-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:58	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:

James Strickland

Team	Polanui	Samplers (Last Name, 1st Initial) HARRIS, K STRICKLAND, J	Meters and Probes ID		
Session	73		HQ40d: 1	2100Q: 1	
Date	7/08/2020		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 PFF200708	Y	8:15	26.2	36.0	6.26	94.8	8.05	2.96	3.05	3.35	0	15	0
Lindsey Hale PLH200708	N	8:42	26.4	35.5	6.13	92.9	8.07	8.70	10.9	9.75	0	2	0
Lahaina Town PLT200708	—	9:05	27.0	35.8	5.8	88.9	8.05	5.34	5.35	5.23	0	0	0
Olowalu Pier OSF200708	—	9:40	26.6	36.6	6.78	103.6	8.05	2.39	3.35	3.28	0	0	0

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

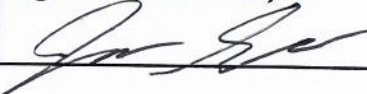
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	5.45	56.2	591
Pre-sampling	0.08	5.43	55.9	590
Post-sampling	0.07	5.39	55.9	589

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	—	—	—
Nutrients	3	J. Harris	J. Strickland
Bacteria	—	—	—

Signature (Team Lead):



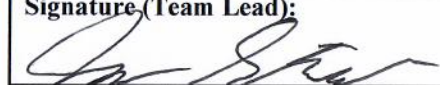
Printed Name:

James Strickland

Team	Polanui	Samplers (Last Name, 1st Initial)	Horro, k Strickland, J
Session	73		
Date	7/08/2020		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF200708-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH200708-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT200708-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OSF200708-N-1	Olowalu Pier	<input type="checkbox"/>	<input type="checkbox"/>		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: James Strickland
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Team	Olowalu	Samplers (Last Name, 1st Initial)	Strickland, J	Meters and Probes ID		
Session	73			HQ40d: 1	2100Q: 1	
Date	07/9/2020			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
Martin Hale OPM200709	N	7:09	25.8	36.7	5.95	90.1	8.01	6.18	6.00	6.67	0	0	0
Camp Olowalu OCO200709	N	7:35	25.7	36.8	6.27	94.5	8.07	2.87	2.85	2.97	0	15	5
Ukumehame OUB200709	N	7:53	25.6	36.7	6.61	99.5	8.08	29.7	29.9	29.3	1	0	0
Papalaua Beach OPB200709	N	8:15	25.4	36.8	6.80	102.1	8.08	4.45	4.19	4.13	0	0	0
Papulua Pali OPP200709	N	8:29	25.9	36.6	6.72	101.5	8.13	11.3	11.7	10.5	3	12	0

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

OCO - 5 tents on beach
OUB - Full parking lot - big swell
& surfers

DO NOT TAKE NUTRIENT SAMPLES THIS EVENT
(Will Only Be Taken Quarterly)

OPP - Surf camp

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	5.45	56.2	591
Pre-sampling	0.08	5.42	56.0	589
Post-sampling	0.08	5.44	55.9	589

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)

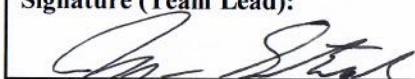
Printed Name:

James Strickland James Strickland

Team	Olowalu	Samplers (Last Name, 1st Initial)	Strickland, J
Session	72		
Date	07/9/2020		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
OPM200709-N-1	Martin Hale	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO200709-N-1	Camp Olowalu	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OUB200709-N-1	Ukumehame	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPB200709-N-1	Papalaua Beach	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP200709-N-1	Papulua Pali	<input type="checkbox"/>	<input type="checkbox"/>		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: James Strickland
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Team	R2RN	Samplers (Last Name, 1st Initial)	Strickland, J	Meters and Probes ID			
Session	73			HQ40d:	1	2100Q:	1
Date	7/10/2020			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
Honolua Bay RHL200710	N	8:10	25.9	35.7	6.54 98.5	98.5	8.13	1.32	1.03	1.32	0	1	0
Oneloa Bay RON200710													
Kapalua Bay RFS200710													
Ka'opala Bay RKO200710	N	9:10	25.9	35.9	6.42 96.7	96.7	8.08	7.47	8.05	7.81	0	0	0
Kahana Village RKV200710	N	9:27	26.1	35.9	5.99 90.5	90.5	8.06	7.93	8.25	8.26	0	0	0

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

RHL - Stream bed completely dry.

RON/RFS - NOT able to access.

Road into Kapalua backed up
for about a mile in both directions
due to The RITZ giving away food
baskets.

Lower Rd. Closed for construction
at Napili shore.

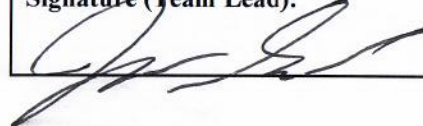
TURBIDITY VERIFICATION

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Standard	0.08	5.45	56.2	591
Pre-sampling	0.08	5.40	56.1	589
Post-sampling	0.08	5.40	55.9	589

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):



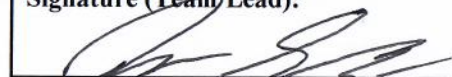
Printed Name:

James Strickland

Team	R2RS	Samplers (Last Name, 1st Initial)	Strickland, J
Session	73		
Date	7/10/2020		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL200710-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON200710-N-1	Oneloa Bay	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS200710-N-1	Kapalua Bay	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO200710-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	
RKV200710-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:27	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:
	James Strickland