

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	6/8/20	10:00	T, STARK; J, STRICKLAND	6/12/20	10:45

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 33.3 °C	NIST 31.4 °C	NIST 30.0 °C	NIST — °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water
	1	1	n/a		33.3		29.8			
	1	2	n/a			31.6		—	6/12: post: 23.0 23.8	
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 23/3/20 date 33.1 ppt	Tap water 0.13	Salin Std 23/3/20 date 33.1 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	1	1	5/4/20		0.13	33.1	0.13	32.8		
	1	2	5/4/20		0.13	33.4	—	—		
Dissolved Oxygen			1 year	Std Val	100%	100%	100%	100%	± 5 %	
	1	1	10/18/19		100.3		98.8%			
	1	2	10/18/19		101.2		—			
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	3	6/8/20		7.00	10.02	6.98	10.06		
	1	4	6/8/20		7.00	10.02	—	—		
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 25 6.65 NTU	BLANK <0.1	LOW 1-10 6.68 NTU	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value
	1	n/a	5/4/20		0.04	6.65	0.04	6.75		
		n/a								

QA:

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

Team	Kamaole	Samplers (Last Name, 1st Initial)	Strickland, J			Meters and Probes ID								
Session	46 47 JS					HQ40d: 1			2100Q: 1					
Date	6/9/20					pH: 3			DO: 1			Salinity: 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)			Entero CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal						water	beach	camp
Kalepolepo North NKN200609	N	8:05	26.4	33.4	5.94	88.6	8.10	2.87	2.59	2.89	0	0	2	0
Waipuilani Park KWP200609	N	8:45	26.7	31.6	5.97	88.7	8.02	20.2	21.2	21.1	0	0	0	0
Kihei South KKS200609	N	9:10	27.9	32.9	6.12	93.5	8.08	11.0	11.9	11.4	10	1	3	0
Kalama Park KKP200609	N	9:35	27.5	34.2	6.47	99.0	8.11	8.44	8.85	8.53	0	1	3	0
Cove Park KCP200609	N	9:55	27.6	30.0	6.86	102.6	8.09	19.4	19.0	23.2	0	7	0	0
Mai Poina Oe Iau NMP200609	N	10:25	28.1	32.9	6.58	100.9	8.10	16.4	16.0	17.9	41	1	2	0

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

KKP - BEACH FISHERMAN REELING
IN FISH. NOTICED BLOOD TRAIL
FROM FISH AFTER SAMPLE
TAKEN

NMP - CONSTRUCTION - HOTEL
BEING BUILT ABOUT
100' TO THE SOUTH OF SITE

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.68	60.6	623
Pre-sampling	0.04	6.78	60.5	623
Post-sampling	0.05	6.66	60.7	621

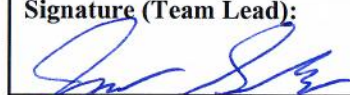
CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	NMS	J. STRICKLAND
Bacteria	6	NMS	J. STRICKLAND

Team	Kamaole	Samplers (Last Name, 1st Initial)	STRICKLAND, J
Session	46 47 J.J		
Date	6/9/20		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN200609-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP200609-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS200609-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP200609-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP200609-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP200609-N-1	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:25	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		

Signature (Team Lead):	Printed Name:
	JAMES STRICKLAND

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Makena	Samplers (Last Name, 1st Initial)	J, STRICKLAND	Meters and Probes ID		
Session	47			HQ40d: 1	2100Q: 1	
Date	6/10/20			pH: 3	DO: 1	Salinity: 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)			Entero CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal						water	beach	camp
Makena Landing MML200610	N	8:10	26.1	34.5	6.67	99.8	8.11	2.56	2.42	2.84	10	0	0	0
S Maluaka Beach MMB200610	N	8:50	26.9	34.6	6.61	100.4	8.12	0.97	1.39	1.24	0	1	4	0
Oneuli MON200610	N	9:45	27.9	34.3	7.09	100.4	8.18	1.74	1.95	2.20	0	0	0	0
Ahihi Kinau North MAN200610	N	9:35	26.4	34.8	7.13	107.4	8.13	0.93	1.16	1.02	0	0	0	0
Ahihi Kinau South MAS200610	N	10:08	26.4	34.8	6.83	103.0	8.19	1.31	1.29	1.31	0	0	20	0

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

VERY CLEAR DAY & LITTLE WIND
MON - GATE WAS CLOSED SAYING
PARK CLOSED. I TALKED TO
PARK RANGER AT AHIHI
& HE SAID WE COULD SAMPLE
THERE. SAMPLE WAS TAKEN
AFTER MAS.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.73	60.6	623
Pre-sampling	0.05	6.73	60.6	623
Post-sampling	0.04	6.74	60.5	621

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

[Signature] James Strickland

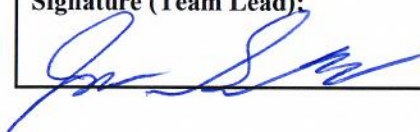
Sites with streams/outflows: Makena Landing

Team	Makena	Samplers (Last Name, 1st Initial)	J, STRICKLAND
Session	47		
Date	6/10/20		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML200610-N-1	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB200610-N-1	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON200610-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN200610-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS200610-N-1	Ahihi-Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:08	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	North Kihei	Samplers (Last Name, 1st Initial)	Streckland, J. Stark, T.	Meters and Probes ID		
Session	47			HQ40d: 1		2100Q: 1
Date	6/11/2020			pH: 3	DO: 1	Salinity: 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)			Entero	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					CFU	water	beach	camp
Maalaea Harbor NMH200611	N	8:00	25.2	34.3	6.34	93.3	8.09	2.40	2.03	2.83	10	0	0	0
Maalaea Condos NMC200611	N	8:30	25.6	33.2	7.10	104.7	8.08	4.09	4.16	4.47	0	0	0	0
Haycraft Park NHP200611	N	8:52	25.4	34.7	6.81	100.9	8.14	4.36	5.11 6.23cs	4.85	20	0	10	2
Kealia Pond NKP200611	N	9:15	26.1	35.0	6.68	100.3	8.15	2.03	1.74	2.26	20	3	9	0
Sugar Beach NSB200611	N	9:45	27.1	34.8	6.58	100.3	8.13	3.6	3.53	3.23	0	0	3	0
Kihei Canoe Club NKC200611	N	10:02	26.9	34.6	6.64	100.8	8.13	3.11 2.44	3.79	3.75	20	0	4	0

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

NMH: super windy
NMC: somewhat windy, sunny
NHP: windy, people fishing, some trash on beach.
NKP: 2 kids, 1 dog; super windy beach.

** Windy @ all sites*

Sites with streams/outflows: Kealia Pond

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.68	60.6	623
Pre-sampling	0.04	6.66	60.4	623
Post-sampling	0.05	6.76	60.6	620

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	NMS	T. Stark
Bacteria	6	NMS	T. Stark

Signature (Team Lead):

Printed Name:

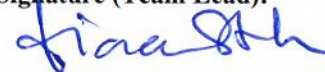
Tiana Stark

Team	North Kihei	Samplers (Last Name,
Session	47	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH200611-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC200611-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP200611-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP200611-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB200611-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC200611-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:02	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:

Tiara Stark

Team	Wailea	Samplers (Last Name, 1st Initial)	STARK, T STRICKLAND, J	Meters and Probes ID		
Session	47			HQ40d: 1		2100Q: 1
Date	6/12/2020			pH: 3	DO: 1	Salinity: 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)			Entero CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal						water	beach	camp
Kilohana Dr WKD200612	N	8:05	26.0	34.7	6.70	99.9	8.15	1.45	1.19	1.31		4	3	0
Keawakapu Beach WKB200612	N	8:30	26.4	34.9	6.71	101.0	8.16	0.86	0.60	0.88		0	4	4 people 1 tent
Ulua Beach WUL200612	N	8:55	26.4	34.6	6.74	101.3	8.16	0.76	0.78	0.69 ⁴⁸ 0.93		8	5	0
Palauca WPL200612	N	9:15	26.9	34.7	6.69	101.4	8.17	1.42	1.82 ⁵	1.70		2	4	0
Poolenalena WPO200612	N	9:35	27.1	34.9	6.64	101.2	8.17 ^{1.05} 0.73 ⁴⁸	1.02	1.02	1.13		13	2	9 tents, ~30 people

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

WKB - 4 poles out by campers
WUL - does in water, submersibles, buoys
WPO - 5 fishing poles near sample site

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.68	60.6	623
Pre-sampling	0.04	6.76	60.5	622
Post-sampling	0.04	6.75	60.7	622

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):



Printed Name:

Tiara Stark

Team	Wailea	Samplers (Last Name, 1st Initial) Stark, T. Strickland, J.
Session	47	
Date	6/12/2020	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD200612-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB200612-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL200612-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL200612-N-1	Palauea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO200612-N-1	Poolenalena	<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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

di asfah

Printed Name:

Tiara Stark