

☐ Temperature of incubator (in)☐ Temperature of incubator (out)

FIELD EQUIPMENT VERIFICATION (Pre/Post A WEEKLY SAMPLING)



Session No:	Verifiers:	Pre date:	Pre time:	Post Date:	Post time:
10	G. Bunnelle, L. O'Brien	02/19/18	09:10	03/23/18	11:30

QA/QC Check	Inst #	Probe #	Last Cal Date	PRE: Verification Value	POST: Verification Value	Acceptable Range (Check range)	Comments/ Notes	QA?
Temperature	1	1	n/a	(Probe 1) 22.3	(Probe 2) 22.0	± 1°C of NIST	Within 1°C	
	1	2	n/a	22.1	26.2			
Salinity	1	1	12/18/17	0.13	0.13	± 3‰ blank	33.95 - 36.05	
	1	2	12/18/17	0.16	0.18			
Dissolved Oxygen	1	1	09/19/17	98.5%	100%	Post-check = 5% of pre-check (0-100%)	80 - 120 %	
	1	2	09/18/17	98.3%	98.4%			
pH	1	1	02/19/18	7.00	7.00	± 3% of calibration solution (6-8)	6.79 - 7.21	
	1	2	02/19/18	7.03	7.05			

QA:

* Are pre- and post within one week?

* Delay times are ok?

* Other equipment issues?

Team	Kamaole	Samplers (Last Name, 1st Initial)	Audrey Quinn Dana Howard Mitch Brown			Meters and Probes ID		
Session	10					HQ40d: 2	2100Q: 2	
Date	03/20/18					pH: 2	DO: 2	Salinity: 2

Location Name Sample ID	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			Waves (0-3)	Wind (0-6)	People (within 100 ft)			TSS	Nutrient duplicate
				(mg/L)	(%)							water	beach	camp		
Waipuli Park KWP180320	7:53	22.2	32.5	6.34	87.9	8.06	8.11	9.02	9.46	1	3	0	5	5	<input type="checkbox"/>	<input type="checkbox"/>
Kihai South KKS180320	8:16	23.8	33.7	6.15	88.5	8.16	3.88	2.56	3.00	0	1	2	10	0	<input type="checkbox"/>	<input type="checkbox"/>
Kalama Park KKP180320	8:45	23.8	33.8	5.99	86.2	8.13	3.83	3.73	3.37	2	1	0	4	0	<input type="checkbox"/>	<input type="checkbox"/>
Cove Park KCP180320	8:58	24.7	32.7	6.29	91.2	8.14	1.85	2.75 1.55	1.30	0	1	3	4	0	<input type="checkbox"/>	<input type="checkbox"/>
Kamaole I KKO180320	9:17	24.8	34.3	6.61	97.3	8.19	0.99	1.15	1.22	2	0	20	35	0	<input type="checkbox"/>	<input type="checkbox"/>
Kamaole III KKT180320	9:40	24.6	34.4	6.47	95.0	8.17	0.73	0.78	0.79	2	0	40	65	0	<input type="checkbox"/>	<input type="checkbox"/>

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high
Wind: 0: calm; 3: gentle breeze; 6: strong breeze

TURBIDITY VERIFICATION

	Blank	Low	Med	High
Standard	0.03	5.91	54.5	577
Pre-sampling	0.08	5.96	54.3	576
Post-sampling	0.04	5.91	54.7	575

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	0		
Nutrients	6	RMS	Genie Quenette
Bacteria	0		

COASTAL AND ENVIRONMENTAL CONDITIONS

Most recent tide time (falling or rising)	Low: 11:32 am High: 5:42 am (falling)
Moon day (from new)	6 - 3
Cloud cover (0-8)	0
Rain conditions (last 24 hrs)	K
Wind direction (Tades/Kona)	NA
Streams flowing? (Y/N)	NA

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

Signature: *Mitch Brown*

Printed Name:

Mitch Brown *Mitch Brown* *Genie Quenette*

Team	Kamaole	Samplers (Last Name, 1st Initial)	Quesada, A. Brown, M. Houlihan, D.
Session	10		
Date	03/20/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KWP180320-N-1	Waipuli Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:53	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS180320-N-1	Kihai South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:16	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP180320-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP180320-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKO180320-N-1	Kamaole I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:17	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKT180320-N-1	Kamaole III	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature Team Lead:

Printed Name:

George S. BARKER *George S. BARKER*

Team	Makana	Samplers (Last Name, 1st Initial)	Wally A., Fries S., Barnett G., Shupe M.		Meters and Probes ID	
Session	10				HQ40d: 2	2100Q: 2
Date	03/21/18				pH: 2	DO: 2
						Salinity: 2

Location Name Sample ID	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)	Waves (0-3)	Wind (0-6)	People (within 100 ft)				TSS	Nutrient duplicate
				(mg/L)	(%)					water	beach	camp			
Makana Landing MML180321	8:00 am	24.1	34.5	6.82	98.7	8.17	2.03	1.73	2.17	1	0	0	5	0	<input type="checkbox"/>
S Maluaka Beach MMB180321	8:05 am	24.3	35.0	6.74	98.4	8.19	0.73	0.73	0.67	2	0	0	4	0	<input type="checkbox"/>
Oneuli MON180321	8:40 am	24.2	34.3	6.73	97.6	8.15	1.93	2.54	2.48	2	3	0	0	0	<input type="checkbox"/>
Makana Beach MBS180321	9:04 am	24.3	35.0	6.76	98.6	8.20	0.33	0.39	0.39	2	2	1	10	0	<input type="checkbox"/>
Ahili Kinau North MAN180321	9:40 am	24.4	34.8	7.28	100.3	8.17	1.00	1.74	1.99	0	1	4	0	0	<input type="checkbox"/>
Ahili Kinau South MAS180321	9:45 am	24.6	34.0	6.67	97.3	8.10	1.18	1.23	1.33	0	1	16	10	0	<input type="checkbox"/>

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high
Wind: 0: calm; 3: gentle breeze; 6: strong breeze

COASTAL AND ENVIRONMENTAL CONDITIONS	
Most recent tide time (falling or rising)	Low: 12:04 pm High: 6:04 am (falling)
Moon day (from new)	4
Cloud cover (0-8)	6
Rain conditions (last 24 hrs)	no
Wind direction (Trades/Kona)	O - Trades
Streams flowing? (Y/N)	N

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

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.04	5.91	54.5	577
Pre-sampling	0.04	5.95	54.5	576
Post-sampling	0.04	5.88	54.6	576

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	0		
Nutrients	6	PMS	Geoff Barnett
Bacteria	0		

Signature: Team Lead	Printed Name:
<i>Wally A.</i>	Wally A. Fries S.

Team	Makena	Samplers (Last Name, 1st Initial)	WOLF, A. FRIES, S. SHARPE, M. BURNETT, G.
Session	10		
Date	03/21/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MMML180321-N-1	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0800	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMMB180321-N-1	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0825	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON180321-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0847	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MBS180321-N-1	Makena Beach Shoreline	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0909	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN180321-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0940	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS180321-N-1	Ahihi-Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0945	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

Printed Name:

[Signature] Connor S. Burnett

Team	North Kihai	Samplers (Last Name, 1st Initial)		B. El Kathy J. O. A. Renee		Meters and Probes ID	
Session	10					HQ400: 2	21000Q: 2
Date	03/22/18					pH: 2	DO: 2
						Salinity: 2	

Location Name Sample ID	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)	Waves (0-3)	Wind (0-6)	People (within 100 ft)			TSS	Nutrient duplicate
				(mg/L)	(%)					water	beach	camp		
Haycraft Park NHP180322	8:20	23.7	34.3	6.86	98.5	8.14	5.63	6.21	5.92	1	4	2	8	<input type="checkbox"/>
Kealia Pond NKP1802322	8:43	23.9	34.8	6.84	98.9	8.21	4.39	4.20	4.41	1	2	0	3	<input type="checkbox"/>
Sugar Beach NSB180322	9:10	24.6	34.7	6.83	100.	8.20	2.85	3.68	3.33	1	2	0	0	<input type="checkbox"/>
Kihai Canoe Club NKC180322	9:25	24.7	34.3	6.80	99.5	8.19	3.95	3.93	4.40	1	1	2	0	<input type="checkbox"/>
Mai Pointe Oe Iau NMP180322	9:45	24.6	32.9	6.85	99.0	8.16	2.79	3.98	3.24	1	3	0	2	<input type="checkbox"/>
Kalepolepo North NKN180322	10:00	24.3	31.4	6.95	99.2	8.20	4.26	4.79	4.31	1	3	2	7	<input type="checkbox"/>

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high
Wind: 0: calm; 3: gentle breeze; 6: strong breeze

COASTAL AND ENVIRONMENTAL CONDITIONS	
Most recent tide time (falling or rising)	Low: 12:41 pm High: 6:23 am (F)
Moon day (from new)	7
Cloud cover (0-8)	6
Rain conditions (last 24 hrs)	0
Wind direction (Trades/Kona)	Trade
Streams flowing? (Y/N)	N

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

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.04	5.91	54.5	577
Pre-sampling	0.09	5.92	54.7	576
Post-sampling	0.03	5.88	54.8	576

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment			
Nutrients	6	NMS	Sofia
Bacteria			

Signature (Team Lead):	Printed Name:
<i>Paula</i>	<i>Sofia de la Cruz</i>

Team	North Kihai	Samplers (Last Name, 1st Initial)	Case, B Thunholm, K Bahr, A
Session	10		
Date	03/22/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHPI80322-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKPI80322-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:43	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSBI80322-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKCI80322-N-1	Kihai Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMPI80322-N-1	Mai Poia Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKNI80322-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:00	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

Printed Name:

Bahr

B. A. Bahr

Hui O Kahe - Oia - Samples Collection Datasheet				
Team	Wailea	Samplers (Last Name, 1st Initial)		
Session	10	Jamie.J a a e m, s		
Date	03/23/18			
Meters and Probes ID				
HQ40d: 2		2100Q: 2		
pH: 2		DO: 2		Salinity: 2

Location Name Sample ID	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)	Waves (0-3)	Wind (0-6)	People (within 100 ft)			TSS	Nutrient duplicate
				(mg/L)	(%)					water	beach	camp		
Kilohana Dr WKD180323	8:05	24.3	34.4	6.79	98.5	8.17	0.96	1.21	0.82	0	0	10	0	□
Keawakapu Beach WKB180323	8:20	24.7	34.9	6.85	100.1	8.20	0.35	0.40	0.31	1	0	1	9	□
Ulua Beach WUL180323	8:45	24.8	34.4	6.77	99.2	8.15	1.11	1.52	1.70	1	0	15	15	□
Wailea Beach WWA180323	9:10	24.9	34.6	6.78	99.5	8.20	0.51	0.83	0.51	2	0	10	20+	□
W ^{PO} Palades WPL180323	9:30	25.3	34.7	6.88	101.8	8.22	0.55	0.64	0.63	2	0	7	20+	□
W ^{PO} Poolaena WPO180323	9:50	25.6	34.7	6.77	100.6	8.21	0.77	0.86	0.74	1	0	5	10	□

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high
Wind: 0: calm; 3: gentle breeze; 6: strong breeze

COASTAL AND ENVIRONMENTAL CONDITIONS	
Most recent tide time (falling or rising)	Low: 1:32 pm High: 6:32 am (F)
Moon day (from new)	8
Cloud cover (0-8)	2
Rain conditions (last 24 hrs)	-
Wind direction (Tides/Kona)	-
Streams flowing? (Y/N)	-

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

We found WDB first and WPL last.

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.02	5.91	54.5	577
Pre-sampling	0.04	5.91	54.6	578
Post-sampling	0.04	5.87	54.8	575

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	NMS	COFIC
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Hui O Ka Ola

Joni a a e m

Team	Wailea	Samplers (Last Name, 1st Initial)	Jamie, J du la Sra, S
Session	10		
Date	03/23/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD180323-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	
WKB180323-N-1	Kaewakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL180323-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WWA180323-N-1	Wailea Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL180323-N-1	Palauca	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO180323-N-1	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

Printed Name:

Jamie J. du la Sra Sofia du la Sra