

☐ 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. Bunnette, L. Atomo	03/19/18	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			n/a	Std	(Probe 1) 22.1	(Probe 2) 22.0	26.1		± 1°C of NIST	Within 1°C	
	1	1	n/a		22.3		—				
	1	2	n/a			22.1	26.2				
Salinity				Std	0.13	Each Std. 35.0	0.13	35.0	± 3%, blank	33.95 – 36.05	
	1	1	12/18/17		0.16	34.9	—	—			
	1	2	12/18/17		0.16	35.4	0.18	34.7			
Dissolved Oxygen			<del>10/19/17</del>	Std	100%		100%		Post-check ± 5 % of pre-check (0-100%)	80 – 120 %	
	1	1	09/19/17		98.5%		—				
	1	2	09/18/17		98.3%		98.4%				
pH				Std	7.00	10.01	7.00	10.01	± 3 % of calibration solution (6-8)	6.79 – 7.21	
	1	1	03/19/18		7.03	10.06	—	—			
	1	2	03/19/18		7.03	10.06	7.05	10.08			

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



Team	Kamaole	Samplers (Last Name, 1st Initial)  Audrey Quinn Danna 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		
Waipullani 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"/>
Kihei 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  
Wind: 0: calm; 3: gentle breeze; 6: strong breeze

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

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	NAS	GEORGE G. BURNETTE
Bacteria	0		

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

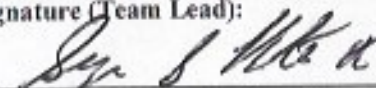
Signature (Team Lead): *Mitch Brown* Printed Name: *Mitch Brown*  
*Georg G. Burnette*



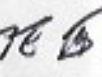
Team	Kamaole	Samplers (Last Name, 1st Initial)	Quinn, A. Brown, M. Howard, D.
Session	10		
Date	03/20/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KWP180320-N-1	Waipuilani 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	Kihei 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		

Signature (Team Lead):



Printed Name:

 GEORGE B. BRUNETTE
 



Team	Makena	Samplers (Last Name, 1st Initial)	Walf A., Fries S., Burnett G., Sharpe 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		
Makena Landing MML180321	8:00 <sup>am</sup>	24.1	34.5	6.82	98.7	8.17	2.03	1.73	2.17	1	0	0	5	0	<input type="checkbox"/>	<input type="checkbox"/>
S Maluaka Beach MMB180321	8:25 <sup>am</sup>	24.3	35.0	6.74	98.4	8.19	0.73	0.72	0.67	2	0	2	4	0	<input type="checkbox"/>	<input type="checkbox"/>
Oneuli MON180321	8:47 <sup>am</sup>	24.2	34.3	6.73	97.6	8.15	1.93	2.54	2.48	2	3	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Makena Beach MBS180321	9:09 <sup>am</sup>	24.3	35.0	6.76	98.6	8.20	0.33	0.39	0.39	2	2	1	10	0	<input type="checkbox"/>	<input type="checkbox"/>
Ahihi Kinau North MAN180321	9:40 <sup>am</sup>	24.4	34.8	7.28	100.3	8.17	1.00	1.74	1.99	0	1	4	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Ahihi Kinau South MAS180321	9:45 <sup>am</sup>	24.6	34.0	6.67	97.3	8.10	1.18	1.23	1.33	0	1	16	10	0	<input type="checkbox"/>	<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)	0 - Trades
Streams flowing? (Y/N)	N

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	NMS	George Burnett
Bacteria	0		

NOTES AND COMMENTS (trends, equipment problems, errors, concerns). Use the back of the form if needed.
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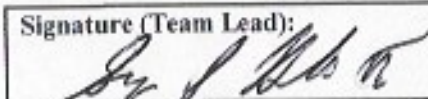
Signature (Team Lead)	Printed Name:
<i>By S. H. &amp;</i>	George G. Burnett



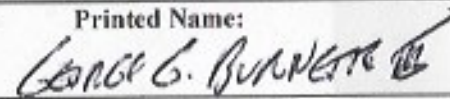
Team	Makena	Samplers (Last Name, 1st Initial)	WOLF, A. FRANKS, S. SHARPE, M. BURNETTE, G.
Session	10		
Date	03/21/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML180321-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	
MMB180321-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		

Signature (Team Lead):



Printed Name:

 GEORGE C. BURNETTE
 



Team	North Kihei	Samplers (Last Name, 1st Initial) <i>Bill Kathy Jill &amp; Renee</i>	Meters and Probes ID		
Session	10		HQ40d: 2	2100Q: 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	8.16	5.63	6.21	5.92	1	1	4	2	8	<input type="checkbox"/>	<input type="checkbox"/>
Kealia Pond NKP1802322	8:43	23.9	34.8	6.84	98.9	8.21	4.39	4.20	4.41	5	2	0	3	0	<input type="checkbox"/>	<input type="checkbox"/>
Sugar Beach NSB180322	9:10	24.6	34.7	6.83	100	8.20	2.85	3.68	3.33	1	1	2	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Kihei Canoe Club NKC180322	9:25	24.7	34.3	6.80	99.5	8.19	3.95	3.93	4.40	5	0	1	2	0	<input type="checkbox"/>	<input type="checkbox"/>
Mai Poina Oe Iau NMP180322	9:45	24.6	32.9	6.85	99.0	8.16	2.79	3.98	3.24	5	3	0	2	0	<input type="checkbox"/>	<input type="checkbox"/>
Kalepolepo North NKN180322	10:00	24.3	31.4	6.95	99.2	8.20	4.26	4.79	4.31	5	3	2	7	0	<input type="checkbox"/>	<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

## 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):

*Jane G*

Printed Name:

*Sofia de la Rosa*

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



Team	North Kihei	Samplers (Last Name, 1st Initial)	Chase, B Thuntolm, K Bahr, Fio	Riley, R.
Session	10			
Date	03/22/18			

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP180322-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	
NKP180322-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	
NSB180322-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	
NKC180322-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP180322-N-1	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKN180322-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		

Signature (Team Lead):

J. Bahr

Printed Name:

J. Bahr



Team	Wailea	Samplers (Last Name, 1st Initial)	Jamie J. de la Garza	Meters and Probes ID		
Session	10			HQ40d: 2	2100Q: 2	
Date	03/23/18			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		
Kilohana Dr WKD180323	8:05	24.3	34.4	6.79	98.5	8.17	0.96	1.21	0.82	0	0	0	10	0	<input type="checkbox"/>	<input type="checkbox"/>
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	0	<input type="checkbox"/>	<input type="checkbox"/>
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	0	<input type="checkbox"/>	<input type="checkbox"/>
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+	0	<input type="checkbox"/>	<input type="checkbox"/>
WPO Paladea WPL180323	9:30	25.3	34.7	6.88	101.8	8.22	0.55	0.64	0.63	2	0	7	20+	2	<input type="checkbox"/>	<input type="checkbox"/>
WPL Poolanalea WPO180323	9:50	25.6	34.7	6.77	100.6	8.21	0.77	0.86	0.74	1	0	5	10	0	<input type="checkbox"/>	<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: 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 (Trades/Kona)	T
Streams flowing? (Y/N)	-

## TURBIDITY VERIFICATION

	Blank	Low	Med	High
Standard	0.03	5.91	54.5	577
Pre-sampling	0.04	5.91	54.6	570
Post-sampling	0.04	5.87	54.8	575

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	NMS	Sofia
Bacteria	-	-	-

Signature (Team Lead):

Jamie J.

Printed Name:

Sofia de la Garza

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

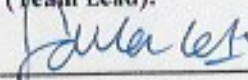
We sample WPO first and WPL last.  
data for.



Team	Wailea	Samplers (Last Name, 1st Initial)	Jamie, J du la sta, 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	Keawakapu 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	Palauea	<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		

Signature (Team Lead):



Printed Name:

Sofia du la sta