

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

Post G. BURGATE

Session No:	Verifiers:	Pre date:	Pre time:	Post Date:	Post time:
8	G. BURGATE L. JONES	2/19/18	9:25	2/23/18	12:35



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 2) (Probe 1) 20.9 20.7	(Probe 2) 25.3	± 1°C of NIST	Within 1°C	
	2	2	n/a		21.1	25.4			
	2	1	n/a		21.0	—			
Salinity				Std	0.13	0.13	± 3‰, blank	33.95 – 36.05	
	2	2	12/18/17		0.12	0.12			
	2	1	12/18/17		0.12	—			
Dissolved Oxygen				Std	100%	100%	Post-check ± 5 % of pre-check (0-100%)	80 – 120 %	
	2	2	9/19/17		97.9%	100.9%			
	2	1	9/19/17		99.3%	—			
pH				Std	7.00	7.00	± 3 % of calibration solution (6-8)	6.79 – 7.21	
	2	2	2/19/18		7.03	7.05			
	2	1	2/19/18		7.03	—			

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

Team	Kamaole	Samplers (Last Name, 1st Initial) <i>Scott SGRAVES</i> <i>Steve Pasell</i> <i>Audrey Quinn</i> <i>Donna Howard</i>	<i>Burnett, G</i>	Meters and Probes ID		
Session	8			HQ40d: 2		2100Q: 2
Date	02/20/18			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		
Waipuilani Park KWP180220	7:54	22.5	33.6	6.68	93.5	8.08	27.7	27.2	28.3	1	3	0	5	3	<input type="checkbox"/>	<input type="checkbox"/>
Kihei South KKS180220	8:20	24.0	33.9	6.50	93.6	8.14	9.26 8.74	10.4	9.94	0	3	3	4	0	<input type="checkbox"/>	<input type="checkbox"/>
Kalama Park KKP180220	8:42	23.8	34.5	6.77	97.5	8.17	7.72	8.00	8.48	3	0	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Cove Park KCP180220	9:01	24.7	33.5	6.47	94.0	8.13	1.58 1.91	1.59	1.59	2	3	10	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Kamaole I KKO180220	9:14	24.9	35.4	6.88	101.4	8.18	2.55	2.49	2.66	2	2	15	20	0	<input type="checkbox"/>	<input type="checkbox"/>
Kamaole III KKT180220	9:36	24.9	35.4	6.66	98.6	8.17	1.74	1.07	1.00	2	0	40	100	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: 12:51 pm High: 6:44 am (falling)
Moon day (from new)	5
Cloud cover (0-8)	0
Rain conditions (last 24 hrs)	NONE
Wind direction (Trades/Kona)	SWO TRADES
Streams flowing? (Y/N)	N

TURBIDITY VERIFICATION

	Blank	Low	Med	High
Standard	0.04	5.85	54.5	574
Pre-sampling	0.04	5.75	54.5	573
Post-sampling	0.08	5.86	54.4	574

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.

AT WAIPIULANI PARK (KWP) SOME OF THE NUTRIENT
SAMPLES SPILLED AND TRANSFER FROM THE
SYRINGE

Signature (Team Lead):

By S. Burnett

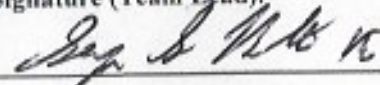
Printed Name:

George G. Burnett

Team	Kamaole	Samplers (Last Name, 1st Initial)	GAUG, S PASELK, S QUINN, A	HOLLAND, D BUNNETT, G
Session	8			
Date	02/20/18			

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KWP180220-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:54	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS180220-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP180220-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP180220-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:01	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKO180220-N-1	Kamaole I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:14	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKT180220-N-1	Kamaole III	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:36	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:

GREG C. BUNNETT

Team	Makena	Samplers (Last Name, 1st Initial) <i>Wmf A, Dunning J, Fries S, Burnett G</i>	Meters and Probes ID		
Session	8		HQ40d: 2	2100Q: 2	
Date	02/21/18		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 MML180221	8:00a	24.2	35.4	6.75	98.2	8.16	2.55	3.15	2.91	1	0	0	6	0	<input type="checkbox"/>	<input type="checkbox"/>
S Maluaka Beach MMB180221	8:30	24.2	35.3	6.88	100.3	8.17	1.52	1.61	1.61	1	0	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Oneuli MON180221	8:50	24.5	35.7	6.72	98.4	8.13	3.24	3.19	3.46	1	0	0	2	0	<input type="checkbox"/>	<input type="checkbox"/>
Makena Beach MBS180221	9:15	24.7	35.8	6.79	100.1	8.18	0.53	0.46	0.45	1	0	1	1	0	<input type="checkbox"/>	<input type="checkbox"/>
Ahihi Kinau North MAN180221	10:06	24.9	35.3	7.56	111.8	8.11	0.95	1.13	1.11	1	0	1	8	0	<input type="checkbox"/>	<input type="checkbox"/>
Ahihi Kinau South MAS180221	10:08	25.3	35.6	6.64	98.7	8.12	0.97	1.09	1.29	1	0	11	20	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: 1:31 pm High: 7:06 am (falling)
Moon day (from new)	6
Cloud cover (0-8)	6
Rain conditions (last 24 hrs)	
Wind direction (Trades/Kona)	Kona
Streams flowing? (Y/N)	NA

NOTES AND COMMENTS (trends, equipment problems, errors, concerns). Use the back of the form if needed.
BLANK TURBIDITY STANDARD 0.08 AND PRE-SAMPLING 0.14 WAS USING LAB-MADE DISTILLED WATER. POST SAMPLING READING OF 0.03 USED STORE BOUGHT DISTILLED WATER. (OVER) UNUSUALLY HIGH - (CONT)

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.08	5.85	54.5	574
Pre-sampling	0.14	5.82	54.1	573
Post-sampling	0.03	5.79	54.1	573


CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	0		
Nutrients	6	NMS	George Burnett
Bacteria	0		

Signature (Team Lead):	Printed Name:
<i>George G. Burnett</i>	GEORGE G. BURNETT

Team	Makena	Samplers (Last Name, 1st Initial)	WOLF, A. OWNING, J. FASKES, S. BURNETTE, G.
Session	8		
Date	02/21/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML180221-N-1	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB180221-N-1	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON180221-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:56	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MBS180221-N-1	Makena Beach Shoreline	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN180221-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:06	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS180221-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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):



Printed Name:

George G. Burnette

Team	North Kihei	Samplers (Last Name, 1st Initial) <i>Thurmon, R Chase, B</i> <i>Green, N; Riley, R</i>	Meters and Probes ID		
Session	8		HQ40d: 2	2100Q: 2	
Date	02/22/18		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 NHP180222	8:30	24.4	34.7	6.70	97.5	8.14	6.05	6.02	6.09	.5	0	0	9	0	<input type="checkbox"/>	<input type="checkbox"/>
Kealia Pond NKP180222	9:00	24.4	35.7	6.84	100	8.18	3.55	3.63	4.06	1	1	0	7	0	<input type="checkbox"/>	<input type="checkbox"/>
Sugar Beach NSB180222	9:25	24.6	35.5	6.78	99.5	8.17	6.34	6.34	6.92	.5	1	0	8	0	<input type="checkbox"/>	<input type="checkbox"/>
Kihei Canoe Club NKC180222	9:48	24.8	34.9	6.72	98.5	8.14	3.88	3.65	3.95	.5	0	0	7	0	<input type="checkbox"/>	<input type="checkbox"/>
Mai Poina Oe Iau NMP180222	10:00	24.7	34.3	6.65	97.1	8.14	4.62	4.34	5.12	0	0	0	6	0	<input type="checkbox"/>	<input type="checkbox"/>
Kalepolepo North NKN180222	10:21	24.7	33.1	6.55	95.02	8.14	14.6	15.9	13.4	.5	1	0	2	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: 2:25 pm High: 7:26 am (F)
Moon day (from new)	8
Cloud cover (0-8)	8
Rain conditions (last 24 hrs)	0
Wind direction (Trades/Kona)	0
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	5.85	54.5	574	
Pre-sampling	5.83	54.2	573	
Post-sampling	5.82	54.2	573	

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment			
Nutrients	6	NM	
Bacteria			

Signature (Team Lead):

Sarah L.

Printed Name:

Sophia de la Sota

Team	North Kihei	Samplers (Last Name, 1st Initial)	Thunholm, K Chen, B Greene, N	Eley, R.
Session	8			
Date	02/22/18			

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP180222-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP180222-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB180222-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC180222-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:48	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP180222-N-1	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKN180222-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:21	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):

Jalla Lep

Printed Name:

Alicia de la Liza

Team	Wailea	Samplers (Last Name, 1st Initial)	HECHT, H. BUNNETT, G. OGLASOFA, S. Nader, D., Jarvie J.	Meters and Probes ID		
Session	8			HQ40d: 2	2100Q: 2	
Date	02/23/18			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 WKD180223	8:05	24.3	35.7	6.87	100.5	8.18	0.68	0.73	0.73	1	0	2	20	0	<input type="checkbox"/>	<input type="checkbox"/>
Keawakapu Beach WKB180223	8:42	24.6	35.6	6.87	100.9	8.16	0.87	0.96	0.98	1	0	8	25	0	<input type="checkbox"/>	<input type="checkbox"/>
Ulua Beach WUL180223	9:15	24.9	35.3	6.92	102.1	8.16	1.45	1.65	1.58	1	1	30	35	0	<input type="checkbox"/>	<input type="checkbox"/>
Wailea Beach WWA180223	9:47	24.9	35.7	6.90	101.9	8.17	1.52	1.63	1.64	2	1	14	60	0	<input type="checkbox"/>	<input type="checkbox"/>
Palaua WPL180223	10:19	24.7	35.7	6.91	101.5	8.17	1.85	2.22	2.29	3	1	3	11	0	<input type="checkbox"/>	<input type="checkbox"/>
Poolenalena WPO180223	10:40	24.9	35.6	6.90	101.7	8.20	0.60	0.63	0.69	3	1	0	8	1	<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: 5:59am (F) 3:46pm High: 1:14pm 7:24am (F)
Moon day (from new)	2+ 9
Cloud cover (0-8)	7
Rain conditions (last 24 hrs)	Yes
Wind direction (Trades/Kona)	NE
Streams flowing? (Y/N)	N - WWA

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

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.03	5.85	54.5	574
Pre-sampling	0.03	5.83	54.2	573
Post-sampling	0.06	5.83	54.2	572

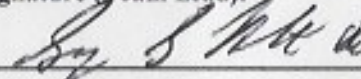
CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	0		
Nutrients	6	NMS	GEORGE BUNNETT
Bacteria	0		

Signature (Team Lead):	Printed Name:
<i>[Signature]</i>	GEORGE G. BUNNETT

Team	Wailea	Samplers (Last Name, 1st Initial)	HECHT, H. BURNETT, G. DE LASOTA, S. NADEA, D. JARVEG, J
Session	8		
Date	02/23/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD180223-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	
WKB180223-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL180223-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WWA180223-N-1	Wailea Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL180223-N-1	Palauea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:19	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO180223-N-1	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:40	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 G. Burnett