

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

Hui O Ka Wai Oia

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
25	M. Brown C. Bickel	12/17/2018	8:30	M. Brown	12/21/18	10:15

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	
	1	1	n/a		23.6 °C	23.5 °C	25.9 °C	— °C			
	1	1	n/a		23.8		25.9				
	1	2	n/a			23.7		—			
Salinity			3 months	Std Val	Tap water	Salin Std	Tap water	Salin Std	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	1	10/1/18		0.13	6/25/18 date 32.6 ppt	0.13	9/25/18 date 32.6 ppt			
	1	1	10/1/18		0.12	33.5	0.13	33.4			
	1	2	10/1/18		0.12	33.4	—	—			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	10/1/18		100.4		100.6				
	1	2	10/1/18		101.3		—				
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	1	12/7/18		7.01	10.03	7.03	10.04			
	1	2	12/17/18		7.01	10.03	—	—			
Turbidity			3 months	Std Val	BLANK <0.1	6.28/6.00 LOW 1-10 NTU	BLANK <0.1	LOW 1-10 NTU	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	1	n/a	10/1/18		0.03	6.25	0.05	6.80			
	2	n/a	10/1/18		0.03	6.05	—	—			

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



Team	Kamaole	Samplers (Last Name, 1st Initial)	Graves, S Howard, D Burnette, G	Meters and Probes ID		
Session	25			HQ40d: 1		2100Q: 1
Date	12/18/18			pH: 1	DO: 1	Salinity: 1

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Kalepolepo North NKN181218	N	8:00	24.8	33.8	5.74	83.2	8.11	2.13	1.93	1.81 1.54	0	2	0
Waipuilani Park KWP181218	N/A	8:14	22.7	31.8	4.45	89.1	8.13	11.0	11.6	11.7	0	3	0
Kihei South KKS181218	N/A	8:30	23.6	33.4	4.05	85.9	8.15	5.36 4.7	6.22	5.86	0	2	0
Kalama Park KKP181218	N	8:46	23.5	34.0	6.87	97.6	8.15	3.89	4.29 4.62	3.79	0	2	0
Cove Park KCP181218	N	9:02	24.9	32.5	6.25	90.2	8.11	2.15	2.29	2.14	2	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	0.03	6.28	58.4	601
Pre-sampling	0.04	6.32	58.5	601
Post-sampling	0.03	6.30	58.9	601

#### CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	6000 Burnette
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

*[Signature]*

GLORIA G. BURNETTE

Sites with streams/outflows: Kalepolepo North, Kalama Park, Cove Park



Team	Makena	Samplers (Last Name, 1st Initial)	DUNNAB, J SHANK, M	BURNETT, G SOUSA, B (OBSERVER)	Meters and Probes ID		
Session	25				HQ40d: 1		2100Q: 1
Date	12/19/2018				pH: 1	DO: 1	Salinity: 1

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Makena Landing MML181219	<del>Y</del> N	8:05	24.4	34.5	6.54	94.8	8.10	<del>1.90</del> 1.73	1.73	2.20	0	0	0
S Maluaka Beach MMB181219		8:40	24.2	34.9	6.80	98.6	8.14	0.75	0.89	0.95	0	4	0
Oneuli MON181219		8:57	24.5	35.2	7.00	102.0	8.15	1.48	1.48	1.35	0	0	0
Ahihi Kinau North MAN181219		9:21	24.5	35.0	7.36	107.6	8.11	1.06	0.99	1.18	2	6	0
Ahihi Kinau South MAS181219		9:45	24.8	35.1	6.95	102.4	8.12	0.86	0.85	0.76	5	7	0

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

MULTI METER WOULDNT TURN ON AT  
THE FIRST BEACH. TOOK THE BATTERIES  
OUT AND PUT THE BATTERIES BACK IN. IT  
WORKED FOR THEN.

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.28	58.4	601
Pre-sampling	0.06	6.23	58.7	601
Post-sampling	0.05	6.35	58.8	601

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	GEORGE BURNETT
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

By S. Shank GEORGE G. BURNETT

Sites with streams/outflows: Makena Landing



## Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Makena	Samplers (Last Name, 1st Initial)	DUNN, J. BURNETT, G. SHARPE, M. SOUSA, B (OBSERVER)
Session	25		
Date	12/19/2018		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML181219-N-1	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB181219-N-1	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON181219-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:57	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN181219-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:21	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS181219-N-1	Ahihi-Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:45	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:
<i>[Signature]</i>	Glen B BURNETT



Team	North Kihei	Samplers (Last Name, 1st Initial) <i>M. Brown</i> <i>K. Thierholz</i> <i>S. Spleen</i>	Meters and Probes ID		
Session	25		HQ40d: 1		2100Q: 1
Date	12/20/18		pH: 1	DO: 1	Salinity: 1

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Haycraft Park NHP181220	n/a	8:25	23.7	33.9	6.63	94.4	8.10	4.33	4.90	4.55	2	10	0
Kealia Pond NKP181220	N	8:55	24.1	35.5	6.86	99.4	8.17	0.71	0.70	0.77	0	0	0
Sugar Beach NSB181220	n/a	9:15	24.0	35.0	6.94	100.1	8.15	2.34	2.54	2.61	0	3	0
Kihei Canoe Club NKC181220	n/a	9:30	24.4	34.9	6.90	100.0	8.15	1.71	1.71	1.76	0	0	0
Mai Poina Oe Iau NMP181220	n/a	9:47	24.7	32.5	6.85	98.7	8.12	1.38	1.69	1.69	0	3	0

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

Turbidity meter 0.10  
1st & 2nd were 16.4  
3rd .35  
4th .29

Turbidity vial is scratched

#### TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.28	58.4	601
Pre-sampling	0.10	6.47	58.4	601
Post-sampling	0.06	6.46	58.7	601

#### CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	.	.	.
Nutrients	5	NMS	M. Brown
Bacteria	.	.	.

Signature (Team Lead):

*Mitch Brown*

Printed Name:

Mitch Brown



Team	North Kihei	Samplers (Last Name, 1st Initial) <i>M. Brown</i> <i>K. Therkelsen</i> <i>S. Spicer</i>
Session	25	
Date	12/20/18	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP181220-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP181220-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB181220-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC181220-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP181220-N-1	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:47	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): <i>Mitch Brown</i>	Printed Name: Mitch Brown
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Team	Wailea	Samplers (Last Name, 1st Initial)	Judy, Janine, Alfred, Wolfe, Seraph <del>Wolfe</del> , Chris Lamb D'Alerta?	Meters and Probes ID		
Session	25			HQ40d: 1		2100Q: 1
Date	12/21/18			pH: 1	DO: 1	Salinity: 1

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Kilohana Dr WKD181221	N	7:54	24.1	35.2	6.89	99.7	8.15	0.56	0.53	0.61	0	2	0
Keawakapu Beach WKB181221	N	8:17	24.6	35.3	6.74	98.4	8.17	0.27	0.30	0.30	0	5	0
Ulua Beach WUL181221	N	8:37	24.3	35.1	6.89	100.1	8.13	0.98	0.83	0.90	11	8	0
Palauea WPL181221	N	8:58	24.9	35.3	6.79	99.5	8.19	0.35	0.50	0.32	0	4	0
Poolenalena WPO181221	N	9:13	25.1	35.3	6.77	99.7	8.19	0.23	0.23	0.44	0	4	2

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	0.03	6.28	58.4	601
Pre-sampling	0.04	6.37	58.1	599
Post-sampling	0.05	6.80	58.7	601

#### CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	Wolfe
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

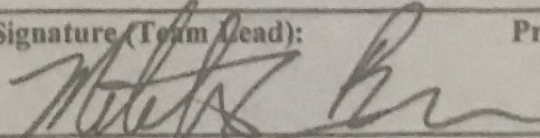
*Wolfe* *Wolfe Brown*

Sites with streams/outflows: NONE



Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD181221-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:54	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB181221-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:17	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL181221-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:37	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL181221-N-1	Palauea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO181221-N-1	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:13	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:
	Mitch Brown