

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



Session No:	74	Verifiers (pre-sampling):	G. Barette	Pre Date:	1/3/22	Pre Time:	1030	Verifiers (post-sampling):	T. Stark, G. Barette	Post Date:	1/6/22	Post Time:	10:00am
-------------	----	---------------------------	------------	-----------	--------	-----------	------	----------------------------	----------------------	------------	--------	------------	---------

QA/QC Check	Inst #	Probe #	Last Cal Date	Std Val	PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/Notes	QA?
Temperature	NIST	n/a	NIST Exp. Date		NIST	NIST	NIST	NIST	± 0.6 °C of NIST	TAP WATER COOLED DOWN FOR Compare to NIST Std value in tap water SECOND READING - MEASURED ON	
	2	3	10/16/22		26.1 °C	24.6 °C	— °C	32.3 °C		PRE TEMP: 22.2 °C	
	2	2	10/16/22			24.9		32.6		POST: 21.1 °C	
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	
					0.13	8/16/22 date 33.6 ppt	0.16	15/21 date 33.6 ppt		USING 0.13 ppt for tap water AS NMS	
	2	3	11/15/21		0.18	34.0	—	—			
Dissolved Oxygen			1 year	Std Val		100%		100%	± 5 %		
	2	1	12/16/21		101.1		—	—			
pH			3 weeks	Std Val		100%		100.5	± 0.1 pH of pH std value	Compare to Manufacturer pH Std value on bottle	
	2	3	1/3/22		7.00	10.02	—	—			
Turbidity			3 months	Std Val		LOW 1-10 NTU		LOW 1-10 NTU	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	1	n/a	10/25/21		0.05	6.67	—	—		LOW STD: 6.74	
	2	n/a	10/25/21		0.06	6.22	0.06	6.22		LOW STD: 6.14	

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

LAB: NMS
* Check gelux standard exp. date !!

Tiana on last day under
quarantine 1/3/22

Team	Kamaole	Samplers (Last Name, 1st Initial)	S. Graves T. Stark	Meters and Probes ID	
Session	74			HQ40d: 2	2100Q: 2
Date	01/04/2022			pH: 4	DO: 2

Location Name Sample ID	Freshwater Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal			water	beach	camp
Kalepolepo North NKN220104	N	7:55	25.0	35.3	6.51	96.6	8.10	20.0	22.2	20.6	0
Waipuilani Park KWP220104	N	8:20	24.6	35.2	6.68	98.2	8.08	42.6	41.3	37.5	0
Kihei South KKS220104	N	8:40	24.5	34.7	6.53	95.6	8.08	21.3	21.9	19.9	0
Kalama Park KKP220104	N	8:55	24.6	34.7	6.73	98.7	8.12	10.5	9.13	10.3	2

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

NKN: sand embankment too high (erosion?)
KWP: Evidence of water runoff on path through trees to sample area.

KWP: turbidity: particles floating in sample
Salinity 35.2 on 2 readings

NKN: Darryl (grounds keeper) mentioned cesspool was exposed after storm (smell?). Car smell sewage. Flare is closed due to this. Curious about nutrient results...

* Less people than usual at all sites
* Brown water everywhere
Sites with potential for freshwater flow: All

TURBIDITY VERIFICATION				
	Blank (must be <0.10)	Low (±0.18)	Med (±1.80)	High (±18)
Standard	0.05	6.14	53.5	579
Pre-sampling	0.07	6.17	53.6	579
Post-sampling	0.07	6.18	53.8	580.

CHAIN OF CUSTODY INFORMATION		
	# of samples	Relinquished to
Sediment	-	-
Nutrients	4	NMS
Bacteria	-	-

Signature (Team Lead):	Printed Name:
<i>[Signature]</i>	Tiara Stark

[Handwritten signature]

honokohau@gmail.com

Ipo Mesman - Water Board

Board member for water

Team	Kamaole	Samplers (Last Name, 1st Initial) <i>S. Graves</i> <i>T. Stark</i>
Session	74	
Date	01/04/2022	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN220104-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP220104-N-1	Waipuulani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS220104-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP220104-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	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:
<i>[Signature]</i>	<i>Tara Stark</i>

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)		B Sousa, A. Wolf, J. Dunning		Meters and Probes ID	
Session	74					HQ40d: 2	2100Q: 2
Date	01/05/2022					pH: 4	DO: 2
						Salinity: 2	

Location Name Sample ID	Freshwater Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal			water	beach	camp
Cove Park KCP220105	N	8:13	24.6	34.7	6.15	95.1	8.11	4.24	0	3	2
S Maluaka Beach MMB220105	N	8:49	24.9	35.4	6.70	98.8	8.17	1.37	0	0	0
Ahihi Kinau North MAN220105	N	9:13	24.8	35.3	7.07	103.9	8.08	1.34	4	1	0
Ahihi Kinau South MAS220105	N	9:34	24.9	35.3	6.51	96.0	8.10	1.52	4	5	0

TURBIDITY VERIFICATION					
	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)	
Standard	0.07	6.14	53.5	579	
Pre-sampling	0.12	6.24	53.2	580	
Post-sampling	0.08	6.19	53.6	580	

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	T. Stank
Bacteria	-	-	-

Signature (Team Lead):	Printed Name:
<i>Michael Tiana Stank</i>	Tiana Stank

<p>NOTES AND COMMENTS (trends, equipment problems, errors, concerns). Use the back of the form if needed.</p> <p>Used new store bought Distilled water for post-sampling blank. Had a hard time getting it below 0.10 NTU.</p>
<p>Sites with potential for freshwater flow: Cove Park</p>

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	B. Sousa A. Wolf J. Dunning
Session	74		
Date	01/05/2022		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP220105-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB220105-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:49	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN220105-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS220105-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:34	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:
	Tiana Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	<i>Burnett, G. BAHN, F</i>	Meters and Probes ID	
Session	74			HQ40d: 2	2100Q: 2
Date	01/06/2022			pH: 4	DO: 2

Location Name Sample ID	Freshwater Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)		People (within 100 ft)		
					(mg/L)	(%) 85-105 normal				water	beach	camp
Maalaea Harbor NMH220106	N	0745	24.8	35.3*	6.04	98.9	8.08	1.47	1.73	0	0	0
Maalaea Condos NMC220106	N	0805	24.7	34.9	6.33	92.9	8.02	6.89	7.25	0	0	0
Haycraft Park NHP220106	-	0820	24.7	35.1*	6.61	97.3	8.11	9.58 8.64	9.11	0	4	8
Kealia Pond* NKP220106	N	0840	24.7	35.4*	6.86	100.8	8.13	4.27	4.25	0	0	0
Kihei Canoe Club* NKC220106	N	0900	25.0	35.2*	6.48	95.9	8.12	22.1 25.2	22.4	0	10	0

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

*SAMPLED OUTSIDE OF HIGH RAIN AT
NAH, NHP, NKP, NKC
STORMGUT SOUTH SWELL MADE IT MORE CHALLENGING
TO GRAB SAMPLES TODAY
- SOME WAVES 3' AT NKP
VERY BROWN WATER WITH SOME DEBRIS IN IT
AT NKC*

TURBIDITY VERIFICATION				
	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.08	6.14	53.5	579
Pre-sampling	0.08	6.26	53.5	580
Post-sampling	0.06	6.22	53.6	580

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	G. Burnett
Bacteria	-	-	-

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

Sites with potential for freshwater flow: Maalaea Harbor, Maalaea Condos, Kealia Pond, Kihei Canoe Club

Team	North Kihei	Samplers (Last Name, 1st Initial)	BARNETT, G. BARR, F.
Session	74		
Date	01/06/2022		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH220106-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0745	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC220106-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0805	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP220106-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0820	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP220106-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0840	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC220106-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0900	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:
<i>[Signature]</i>	GEORGE C. BARNETT JR