

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
67	M. Brown, T. Stark	8/2/21	9:00am	M. Brown	8/5/21	9:45am

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST	n/a	NIST Exp. Date	Std Val	NIST	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	1	1	10/16/22		23.7 °C	24.0 °C	31.1 °C	— °C			
	2	2			23.8	24.3	31.4	—			
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	3	8/2/21		0.13	5/10/21 date 35.6 ppt	0.13	8/5/21 date 33.6 ppt		Used new salinity solution Cathy made.	
	2	2	5/31/21		0.17	35.1	—	—			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	11/2/20		96.5 %		96.7				
	2	2	11/2/20		97.8 %		—				
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	3	8/2/21		6.97	9.95	7.05	10.02			
	2	4	8/2/21		7.01	10.00	—	—			
Turbidity			3 months	Std Val	BLANK <0.1	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	6/21/21		0.07	6.17	0.04	6.24		Turbidity Calibration Std Exp: June 2022	
	3	n/a	8/2/21		0.09	6.11	—	—		Low Std: 6.21 #1; Low Std: 6.11 #3	

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

Lab: NMS

* Turbidity Meter #2 sent for repairs. Found a #3 and calibrated for use as backup.

Team	Kamaole	Samplers (Last Name, 1st Initial)	Rick Cyr SCOTT GRAVES	Meters and Probes ID		
Session	67			HQ40d: 1		2100Q: 1
Date	8/3/21			pH: 3	DO: 1	Salinity: 3

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 NKN210803	N	8:4m	26.5	33.1	6.79	83.7	8.09 8.04	1.82	3.05	2.67	0	3	0
Waipuilani Park KWP2108013	N	08:24	25.9	32.8	5.61	83.0	8.06	4.40	5.41	5.49	0	1	0
Kihei South KKS210803	N	08:44	26.9	34.0	5.54	83.8	8.10	3.75	3.95	4.23	0	2	0
Kalama Park KKP210803	N	09:02	26.7	34.8	6.41	97.2	8.12	5.50	5.97	6.47	3	7	0

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

1 805-808
2 828-835
3 8:49-852
4 9:06 9:10

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	6.21	54.8	578
Pre-sampling	0.06	6.17	54.6	580
Post-sampling	0.05	6.17	54.8	578

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	M Brown
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

[Signature] Mitch Brown

Sites with potential for freshwater flow: All

Team	Kamaole	Samplers (Last Name, 1st Initial)	Cyr R Graves S.
Session	67		
Date	08/3/21		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN210803-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP210803-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:24	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS210803-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:44	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP210803-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:02	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): Mitch Brown	Printed Name: Mitch Brown
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Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Wolf A, N Sharpe, B. Sousa	Meters and Probes ID		
Session	67			HQ40d: 1		2100Q: 1
Date	08/04/21			pH: 3	DO: 1	Salinity: 3

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 KCP210804	N	8:45	26.5	32.7	6.19	92.3	8.07	4.17	4.18	4.08	2000	2	2+ dog
S Maluaka Beach MMB210804	N	9:20	27.1	35.4	6.38	97.7	8.14	0.94	0.94	1.00	4	5	0
Ahihi Kinau North MAN210804	N	9:35	26.7	35.4	7.52	114.5	8.17	1.24	1.68	2.03	4	3	0
Ahihi Kinau South MAS210804	N	9:45	26.7	35.5	6.61	100.7	8.14	0.71	0.71	0.71	11	18	0

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

Cove Park = campers w/dog live @ beach
surf school peo. off in distance 30+

* Nancy Sharpe accidentally signed
in the "team lead" box.

Sites with potential for freshwater flow: Cove Park

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.05	6.21	54.8	578
Pre-sampling	0.04	6.21	54.7	578
Post-sampling	0.06	6.21	54.8	578

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):

[Signature]

Printed Name:

Al Sharpe & S.
Tiara Stark

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Wolf, A. Sousa, B. Sharpe, N.
Session	67		
Date	08/04/21		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP210804-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB210804-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN210804-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS210804-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		

Signature (Team Lead):



Printed Name:

Tiara Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	BURNETT, G. BACH, F	Meters and Probes ID		
Session	67			HQ40d: 1		2100Q: 1
Date	08/05/21			pH: 3	DO: 1	Salinity: 3

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 NMH210805	N	0745	25.1	34.5	5.98	88.1	8.08	1.17	1.11	1.14	0	0	0
Maalaea Condos NMC210805	N	0805	24.8	32.0	7.74	112.0	8.10	3.09	2.62	2.96	1	1	0
Haycraft Park NHP210805	—	0820	25.3	34.2	6.65	98.1	8.08	8.86	8.94	8.88	2	2	0
Kealia Pond NKP210805	N	0845	26.4	35.6	6.60	99.7	8.15	0.76	0.92	0.99	0	1	0
Kihei Canoe Club NKC210805	N	0905	27.2	34.7	6.46	98.6	8.11	1.21	1.46	1.41	4	14	0

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

NMC DO AND DO% 11564?

NHP - GREEN ^{RIANED} NUTRIENT FILTER USED - WATER
PUSHED THRU FILTER MUCH EASIER
IS THIS OKAY?

2 EAGLE KAYS BEAN SHONE AT NKC

ALL BEACHES - MUCH LESS WINDY TODAY COMPARED
TO RECENT WEEKS, WAVES GENERALLY
SMALLER

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

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	6.21	51.8	578
Pre-sampling	0.06	6.21	54.4	577
Post-sampling	0.04	6.22	54.7	578

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMCS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Tiara Stark

Tiara Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	Burnette, G. Bahr, F.
Session	67		
Date	08/05/21		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH210805-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC210805-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP210805-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	
NKP210805-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC210805-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	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:

Tiara Stark