

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
84	Y.St-Louis, M. Sharpe	8/1/22	10:10	Y.St-Louis, M. Sharpe	8/4/22	10:00

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 26.6 °C	NIST 26.5 °C	NIST 28.2 °C	— °C	± 0.6 °C of NIST Compare to NIST Std value in tap water
	2	2	10/16/22		26.6		28.3		NIST Reaching Exp. Date.
	2	3			26.6		—		
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 5/31/22 date 33.9 ppt	Tap water 0.13	Salin Std 5/31/22 date 33.5 ppt	± 1 ppt Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	2	2	5/31/22		0.19	33.9	0.18	33.7	
	2	3	5/31/22		0.19	33.8	—	—	
Dissolved Oxygen			1 year	Std Val	100%		100%	± 5 %	
	2	1	12/16/21		98.0		—		
	2	2	12/16/21		96.8		95.4		
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
	2	4	8/1/22		7.02	10.01	7.03	10.02	10pH Exp 3/2023 7pH Exp 3/2023
	2	5	8/1/22		7.03	10.00	—	—	4pH Exp 12/2023
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
	2	n/a	8/1/22		0.07	6.18	0.06	6.21	
	1	n/a	8/1/22		0.08	6.38	—	—	

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

LAB:NMS

Team	Kamaole	Samplers (Last Name, 1st Initial)	Hecht, Gravies, Mukib							Meters and Probes ID		
Session	84									HQ40d: 2	2100Q: 2	
Date	08/02/2022									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
Kalepolepo North NKN220802	N	7:56	25.7	34.8	6.01	89.4	8.14	3.72	3.57	4.01	3	22	0
Waipuilani Park KWP220802	N	8:17	25.2	34.6	6.29	92.7	8.09	22.6	22.6	22.9	2	3	0
Kihei South KKS220802	N	8:31	26.0	33.7	6.25	93.1	8.12	9.21	9.33	9.22	0	3	0
Kalama Park KKP220802	N	8:50	26.5	35.4	6.29	95.4	8.15	4.23	4.10	4.22	6	3	0

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

4th Reading KKP - Kalama Park

High Tide. Sediment in surf KWP

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.07	6.18	54.1	603
Pre-sampling	0.10	6.35	54.3	602
Post-sampling	0.07	6.13	54.3	605

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Sharpe

Sites with potential for freshwater flow: All

Team	Kamaole	Samplers (Last Name, 1st Initial)	Hecht, Grimes, Graves, McHugh			
Session	84					
Date	08/02/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN220802-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:56	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP220802-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:17	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS220802-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:31	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP220802-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	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:

Sharpe

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	MARCELLA, M. SOUZA, B. BENTLY, D.						Meters and Probes ID			
Session	84								HQ40d: 2		2100Q: 2	
Date	08/03/2022								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 KCP220803	N	8:12A	26.2	33.7	6.00	89.9	8.08	10.0	13.2	18.6	6	0	1
S Maluaka Beach MMB220803	N	8:54A	26.9	35.8	6.31	97.1	8.18	0.67	0.88*	0.82	5	10	0
Ahihi Kinau North MAN220803	N	9:28A	26.8	35.7	7.18	109.8	8.16	0.85	0.94	0.92	8	7	0
Ahihi Kinau South MAS220803	N	9:50A	26.9	35.6	6.36	97.7	8.14	0.89	0.91	1.05	3	22	0

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).

Use the back of the form if needed.

KCP: mid-tide; clear sky, moderate swell.

MMB: * 0.88 (FOURTH READING)

MAS: Low tide - moderate swell
exposed rocks

MAN: active with snorklers @ shoreline

Sites with potential for freshwater flow: Cove Park

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.07	6.13	54.3	605
Pre-sampling	0.13	6.19	54.3	604
Post-sampling	0.05	6.19	54.3	602

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	N.Sharpe
Bacteria	-	-	-

Signature (Team Lead):

N.Sharpe

Printed Name:

N.Sharpe

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)				
Session	84					
Date	08/03/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP220803-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:12 a	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB220803-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:54 a	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN220803-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:28 a	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS220803-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50 a	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):

N.Sharpe

Printed Name:

N. Sharpe

Team	North Kihei	Samplers (Last Name, 1st Initial)	Kolfa, Behr,F	Helgeland, A. Yannell, L.	Meters and Probes ID				
Session	84				HQ40d: 2			2100Q: 2	
Date	08/04/2022				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
Maalaea Harbor NMH220804	N	7:38	25.6	35.1	5.90	88.3	8.15	1.13	1.16	0.98	0
Maalaea Condos NMC220804	N	8:12	26.0	34.5	6.38	95.7	8.08	2.23	2.39	2.23	0
Haycraft Park NHP220804	—	8:30	25.9	35.3	6.38	96.0	8.14	11.1	11.4	11.3	0
Kealia Pond NKP220804	N	8:47	26.0	35.9	6.42	97.2	8.18	1.42	1.46	1.57	0
Kihei Canoe Club NKC220804	N	9:03	26.8	35.5	6.37	97.4	8.17	12.2 10.2 14.0	14.0	15.0	0
									6	0	

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).

Use the back of the form if needed.

* Sample Not Pure. * Spare read at 0.35 NTU
tour boat departing during collection - Maalaea
calm ocean, brownish water - Haycraft

Kealia - waves 1.5', looks clear

NKC - brown at shorebreak; 2-3' shorebreak
4th turbidity read

► Team explained that they inverted the
DI pre-sample before reading it. That may have
been the issue. We talked about that issue - LY
Sites with potential for freshwater flow: Maalaea Harbor, Maalaea
Condos, Kealia Pond, Kihei Canoe Club

* Spare cell filled with fresh DI water in the
lab and the post sample read 0.05 NTU

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.05	6.19	54.3	602
Pre-sampling	* .32	6.19	54.0	602
Post-sampling	0.06	6.21	54.2	602

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NHS	Liz Yannell
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Team	North Kihei	Samplers (Last Name, 1st Initial)	wolf, A	Helgeland, A.
Session	84		Behr, F	
Date	08/04/2022			yannell, L.

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH220804-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC220804-N-1	Maalaea Condos	<input type="checkbox"/>	<input type="checkbox"/>	8:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP220804-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	
NKP220804-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC220804-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:03	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:
	Ylenia St-Louis