


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

Session No:	Verifiers (pre-sampling):			Pre Date:	Pre Time:	Verifiers (post-sampling):			Post Date:	Post Time:
101	M. Sharpe	Y. St-Louis	L. Yannell	7 Aug 2023	10:30 AM	Sharpe	Yannell		8/10/23	10:55
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	
	2 7	6/28/24		28.7	28.7	33	—			
	2 8	6/28/24			28.6	—				
Salinity	3 months	Std Val	Tap water	Salin Std 7/12/23 date 34.7 ppt	Tap water 8/1/23 date 33.7 ppt	0.13	0.13	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	4 8	8/7/23		0.17	33.7	—	—			
	3 7	8/7/23		0.17	33.6	0.13	34.0			
Dissolved Oxygen	1 year	Std Val	100%		100%		± 5 %			
	4 4	7/17/23	102.0%		—					
	3 3	7/17/23	101.1%		99.8					
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		
	3 5	8/7/23	7.01	9.97	7.03	10.00				
	4 6	8/7/23	7.01	9.96	—	—				
Turbidity	3 months	Std Val	BLANK <0.1 NTU	LOW 1-10 —	BLANK <0.1 NTU	LOW 1-10 —	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value spare blank 0.06 Low 6.31 standard 0.08 Low 6.54 standard 0.08		
	2 n/a	8/7/23	0.09	6.33	—	—				
	5 n/a	8/7/23	0.05	6.51	0.05	6.60				

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

NMS Lab

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Kamaole	Samplers (Last Name, 1st Initial)	McHugh, K., Sharpe, M., Graves, S., Hecht, H.					Meters and Probes ID		
Session	101							HQ2200:3	2100Q:	5
Date	08/08/2023		pH: 5	DO: 13.2%	Salinity: 7					

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) 5.2-7.0 normal	(%) 85-105 normal			water	beach	camp	
Kalepolepo North NKN230808	N	8:00am	26.7	34.4	6.19	92.1	8.15	6.27	7.45 LY	3	1	0
Waipuilani Park KWP230808	N	8:18am	24.9	34.9	6.65	97.2	8.09	13.7	8.53 6.98	0	2	0
Kihei South KKS230808	N	8:35	26.0	34.2	6.24	92.4	8.09	18.7	14.2 14.4	1	6	2
Kalama Park KKP230808	N	9 am	26.3	35.0	6.74	100.6	8.15	23.8	23.2 23.9	0	1	0

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

NKN: No wind, some wind yesterday due to Hurricane Dora but mild weather. Small waves, rising tide. Sunny.
NKN - Turb. 7.45 (4th read)

KWP: NO wind, small waves, high tide, lots of sand in water. Sunny.

KKS: calm, no wind, small waves ~1 ft. A couple homeless campers.

KKP: No wind, sunny, small waves - smaller than wave for this site. Some logs on shore. 4 paddle boarders further out ~100 yards. Larger particles in water.

TURBIDITY VERIFICATION & PROBE TEMPERATURES

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.05	6.54	58.4	605
Field - Pre-sample	0.07	6.55	58.9	605
Lab - Post sample	0.06	6.48	58.9	606
Probes (+/- 0.2 °C)	D.O	Salinity	pH	Notes
Verify Probe Temps	26.2	26.0	26.1	

SP412 0.06
SP412 0.06
SP412 0.06

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Nutrients	4	NMS	Sharpe
Signature (Team Lead):	Printed Name: Sharpe		

Sites with potential for freshwater flow:

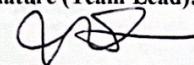
Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Kamaole	Samplers (Last Name, 1st Initial)	McHugh, K Sharpe, M			
Session	101		Graves, S			
Date	08/08/2023		Hecht, H			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN230808-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	
KWP230808-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS230808-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP230808-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	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

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Sousa, B Crevier, D Bentley, D Sharpe, M					Meters and Probes ID			
Session	101							HQ2200: 3	2100Q: 5		
Date	08/09/2023							pH: 5	DO: 13.78	Salinity: 7	

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) 5.2-7.0 normal	(%) 85-105 normal			water	beach	camp
Cove Park KCP#230809	N	8:00	26.2	32.6	6.56	96.7	8.11	15.8	14.9	14.0	0
S Maluaka Beach MMB230809	N	8:40	26.9	35.5	6.68	101.3	8.17	4.78	4.74	4.93	3
Ahihi Kinau North MAN230809	N	8:55	26.3	37.5	6.99	105.3	8.14	1.68	1.60	1.86	5
Ahihi Kinau South MAS230809	N	9:10	26.7	35.9	6.77	102.6	8.18	1.33	1.37	1.26	12

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

KCP: Brown water @ shoreline, high tide, calm light breeze, 4th TURB 14.0

MMB: Small sandy shore break, light breeze, sunny calm waves

MAN: high shore water, calm waves, light breeze, sunny
4th TURB 1.68

MAS: high tide @ shoreline, 1-2' waves, breezy
Sunny 4th TURB 1.33

TURBIDITY VERIFICATION & PROBE TEMPERATURES

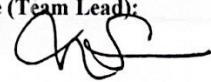
	Blank (must be < 0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.05	6.54	58.0	605
Field – Pre-sample	0.05	6.59	58.4	607
Lab – Post sample	0.05	6.60	58.6	605
Probes (+/- 0.2°C)	D.O	Salinity	pH	
Verify Probe Temps	26.0	26.2	26.1	

SPARE turb 0.06

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Nutrients	4	NMS	Sharpe

Signature (Team Lead):



Printed Name:

Sharpe

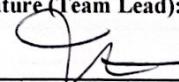
Sites with potential for freshwater flow: Cove Park

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Sousa, B	Sharpe, M
Session	101		Bentley, D	
Date	08/09/2023		Crevier, D	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP230809N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB230809-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN230809-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS230809-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	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

NMS

Hon O Ka Wai Ola - Sample Collection Datasheet

Team	North Kihei	Samplers (Last Name, 1st Initial)	A. Hegeland, L. Yannell, Y. St-Louis, M. Sharpe					Meters and Probes ID		
Session	101							HQ2200: 3		2100Q: 5
Date	08/10/2023							pH: 5	DO: 3	Salinity: 7

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) 5.2-7.0 normal	(%) 85-105 normal			water	beach	camp
Maalaea Harbor NMH230810	N	8:10	25.3	34.9	6.32	92.7	8.14	2.41	2.78	2.37	AH
Maalaea Condos NMC230810	N	8:40	25.7	34.7	7.12	105.3	8.14	8.39	8.23	9.57	
Haycraft Park NHP230810	N	9:10	25.9	35.8	6.82	101.8	8.20	5.93 ^{MS}	6.60	5.65	4
Kealia Pond NKP230810	N	9:38	26.3	36.2	6.76	101.8	8.17	2.79 ^{MS}	2.97	2.88	0
Kihei Canoe Club NKC230810	N	9:58	26.4	35.6	6.63	99.9	8.16	12.2	11.4	11.5	0
									2	2	0

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

NMH - Windy, gusting, fires burning since early Tues 8/8

NMC - high tide, ~2' shorebreak, sunny, windy, very light drizzle of rain, water in culvert but has not reached shoreline 4th turbidity = 9.11 5th turbidity = 10.8

NHP - Sandy shorebreak, breeze gusts, sunny, high tide @ shoreline, 4th turbidity = 5.93, ~3 ft shorebreak

NKP - sewage smell at beach, wind picking up more, ~2ft shorebreak

NKC - strong shorebreak, sandy, gusty wind, high tide, brown water

TURBIDITY VERIFICATION & PROBE TEMPERATURES

	Blank (must be <0 10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.05	6.54	58.0	605
Field - Pre-sample	0.05	6.59	58.8	606
Lab - Post sample	0.05	6.60	58.7	605
Probes (+/- 0.2°C)	D.O	Salinity	pH	Notes
Verify Probe Temps	25.2	25.3	25.2	:-)

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Nutrients	5	NMS	M. Sharpe

Signature Team Lead:

Liz Yannell

Printed Name:

Liz Yannell

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

Last updated July 2023

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	North Kihei	Samplers (Last Name, 1st Initial)	<i>St. Louis Yannell Sharpe Heigeland, A</i>			
Session	101					
Date	08/10/2023					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH230810-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC230810-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP230810-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP230810-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC230810-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:58	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