

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
86	J.St-Louis , M.Sharpe	9/12/22	9:40			

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 28.5°C	NIST 28.1°C	NIST 28.4°C	NIST — °C	± 0.6 °C of NIST Compare to NIST Std value in tap water
2	2	06/28/24		29.1		28.9			
2	3	—		27.9		—			
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 33.9 ppt	Tap water 0.18	Salin Std 33.9 ppt	± 1 ppt Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
2	2	5/31/2022			0.19	33.8	28.9	33.8	
2	3	5/31/2022			0.20	33.3	—	—	
Dissolved Oxygen			1 year	Std Val	100%	100%	± 5 %		
2	1	12/16/22			98.6	—			
2	2	12/16/22			97.3	95.1			
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	9/12/22			7.01	10.00	7.03	9.99	
2	5	9/12/22			7.01	9.99	—	—	
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 6.38 NTU	BLANK <0.1	LOW 1-10 — NTU	± 0.18 NTU Low 1-10 Compare to Gel LOW 1-10 Std Calibration value
2	1	n/a	8/11/22		0.07	6.37	—	—	Low: 6.38
2	2	n/a	8/11/22		0.07	6.20	0.06	6.06	Low: 6.18

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

Team	Kamaole	Samplers (Last Name, 1st Initial)							Meters and Probes ID			
Session	86								HQ40d: 2		2100Q: 2	
Date	09/13/2022								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 NKN220913	N	7:52	26.1	34.2	6.44	96.2	8.13	10.2	9.89	10.8	0	0	0
Waipuilani Park KWP220913	N	8:10	26.6	35.4	6.23	94.5	8.10	24.5	25.2	23.4	0	2	01
Kihei South KKS220913	N	8:27	26.8	34.2	6.19	93.6	8.06	22.0	21.7	21.9	0	2	0
Kalama Park KKP220913	N	8:43	27.2	35.5	6.29	96.4	8.13	13.2	12.2	14.4	0	0	0

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

Use the back of the form if needed.

NKN: High tide, swell, recent rain but no active runoff, overcast

KWP: High tide, sunny, water looks brown w/ debris (tree branches), recent storm, two large pieces of Plant debris in NTU sample vial

KKS: High tide, small waves, water looks brown, recent storm

KKP: Recent flooding, stream currently not flowing but looks like it was flowing recently

Sites with potential for freshwater flow: All

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	0.07	6.21	54.2	603
Post-sampling	0.05	6.21	54.2	601

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Ylenia M St-Louis

Team	Kamaole	Samplers (Last Name, 1st Initial)	Y. St-Louis			
Session	86		K. McHugh			
Date	09/13/2022		S. Graves			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN220913-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	152	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP220913-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	810	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS220913-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	827	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP220913-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	843	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 M St-Louis

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Bentley, D, SOUSA, B. Sharpe, M						Meters and Probes ID			
Session	86								HQ40d: 2		2100Q: 2	
Date	09/14/2022								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 KCP220914	N	8:22	26.5	34.1	5.19	78.0	8.02	17.3	18.0	20.07 23.2	2
S Maluaka Beach MMB220914	N	9:03	27.3	35.8	6.23	96.0	8.16	1.26	1.27	1.27	3
Ahihi Kinau North MAN220914	N	9:21	27.1	35.8	7.04	108.3	8.16	1.13	1.28	1.87	0
Ahihi Kinau South MAS220914	N	9:40	27.0	35.8	6.24	95.7	8.15	0.82	1.00	0.88	3

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

Use the back of the form if needed.

KCP: wet flow pattern from previous rainfall 2 days ago
no flow today · Permanent fish camp @ shoreline
Turb Reading remains high (5th reading taken)
High Tide · Readings differ in range after 6 readings

MAN: High tide · Calm · Sand clogged filter $\frac{1}{2}$ way
New filter used for remainder of sample

MAS: High tide · calm w/shore break

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	6.18	54.1	603
Pre-sampling	0.07	6.10	53.7	601
Post-sampling	0.06	6.02	54.3	602

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

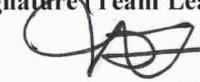
M. Sharpe

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Bentley, D · Souse, B · Sharpe, M			
Session	86					
Date	09/14/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP220914-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:22	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB220914-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:03	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN220914-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	
MAS220914-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	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:

M. Sharpe

Team	North Kihei	Samplers (Last Name, 1st Initial)	Bahr, Flo	M. Sharpe	Meters and Probes ID		
Session	86		Helgeland, Angela			HQ40d: 2	2100Q: 2
Date	09/15/2022		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 NMH220915	N	8:02	26.5	35.5	5.92	90.1 26.5	8.14	1.19	1.18	1.21	0 0 0
Maalaea Condos NMC220915	N	8:10	26.7	35.2	6.33	96.4	8.10	4.89	4.81 5.47	4.78	0 0 0
Haycraft Park NHP220915	N	8:30	26.6	35.4	6.30	96.0	8.13	12.5	11.7	11.5	0 4 0
Kealia Pond NKP220915	N	9:00	26.9	36.1	6.40	98.2	8.18	2.77	2.85	2.86	0 2 0
Kihei Canoe Club NKC220915	N	9:20	27.3	35.6	6.32	97.4	8.16	16.8 13.8	20.9	22.8	0 25 0
								20.5			

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

NMH: high tide - tour boat just left harbor @ collection site

NMC: 4th reading turb 4.81 + High Tide . brownish waves
Fresh water (small amount) sitting in gash from
previous rain last days.

NHP: High tide w/ gentle shore break & brown water waves

NKP: High tide . calm shore break w/ sediment in waves

NKC: High tide: Shore erosion w/ sand in waves
Tab: 5 readings . Canoe Club members on Beach

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	6.09	53.6	600
Pre-sampling	0.06	6.21	54.1	601
Post-sampling	0.06	6.06	54.2	601

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

M. Sharpe

Team	North Kihei	Samplers (Last Name, 1st Initial)	Behr, F Helgeland, A Sharpe, M
Session	86		
Date	09/15/2022		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH220915-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC220915-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP220915-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	
NKP220915-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC220915-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	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:

M Sharpe