

FIELD EQUIPMENT VERIFICATION

PRE and POST at Weekly Sampling

Session No:	Verifiers (pre-sampling):		Pre Date:	Pre Time:	Verifiers (post-sampling):		Post Date:	Post Time:			
5m 102 FR 1	M. Sharpe, L. Yannell		8/28/23	11:15 AM	m. sharpe, Y. St-Louis		08/31/2023	0930			
QA Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA ?
Temperature	NIST		NIST Exp. Date	Std Val	NIST	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	2	8	6/28/24		32.3 °C	32.2 °C	31.1 °C	31.1 °C			
	4 32	7	6/28/24			32.2		31.0			
Salinity	Meter #	Probe #	3 months	Std Val	Tap water	Saline Std 8/7/23 date 33.7 ppt	Tap water	Saline Std 8/7/23 date 33.7 ppt	± 1 ppt	Tap water – compare pre & post Values Salinity Std – compare to value on Salinity Std bottle	
	3	7	8/7/23		0.13	34.0	0.18	34.2			
	4 24	8	8/7/23		0.17	33.5	0.18	33.7			
Dissolved Oxygen	Meter #	Probe #	1 year	Std Val	100%		100%		± 5 %		
	4	4	17 July 2023		102.2		103.6				
	3	3	17 July 2023		88		101.7			Probe reads low % Tested 2 x	
pH	Meter #	Probe #	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	
	4	6	08/28/23		7.00	10.01	7.00	10.00		probes #4 recalibrated	
	3	5	08/28/23		7.00	10.01	7.01	10.01		on 8/30/23 because they read low	
Turbidity	Meter #	Probe #	3 months	Std Val	blank <0.1	Low 1-10 NTU	blank <0.1	Low 1-10 NTU	+ 0.18 NTU Low 1-10	in field 2x. Just out of caution Compare to Gel LOW 1-10 Std Calibration Value	
	2		8/7/23		0.04	6.37	0.05	6.34	56.4	Low Std = 6.31 Spare Blank Pre = 0.05	
	5		8/7/23		0.06	6.53	0.06	6.43	58.3	Low Std = 6.54 Spare Blank Pre = 0.05	

NMS lab

Maui NPS - Waipaho - Sample Collection Datasheet

Team	Kamaole	Samplers (Last Name, 1st Initial)	Scott GRAYES Sharpe, M.	Meters and Probes ID		
Session	102			HQ2200: 4		2100Q: 2
Date	08/29/2023			pH: 6	DO: 4	Salinity: 8

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 NKN230829	N	8:00	25.8	33.9	6.37	94.2	8.02 7.6	3.49 ⁵⁹ 2.21	3.41 ⁵⁶ 4.32	3.84	Ø	>20 boats	Ø
Waipuilani Park KWP230829	N	8:35	25.6	34.0	6.43	94.3	7.94	6.57	6.54	6.60	Ø	2	Ø
Kihei South KKS230829	N	8:50	26.4	34.5	6.02	89.8	7.94	9.90 ⁴⁶ 2.88	10.8	8.90 ⁵⁶ 12.1	Ø	Ø	Ø
Kalama Park KKP230829	N	9:10	27.0	34.8	6.71	101.4	8.02	13.2	12.9 ¹⁵ 12.3	13.6	Ø	Ø	Ø

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

NKN: several canoes, paddlers roaming the beach, not water.
3.41, 3.49 extra turbidity measurements
freq. small swell, no surf break: 5 TURBS

KWP: calm, sunny, no shore break. water has floating sediment
* pH reading low - tried 2x, rinsed w/distilled

KKS: calm, no wave, sunny, no shore break
water brown w/sediments: 5 TURBS

KKP: calm, sunny, no shore break, water looks brown
w/sediments. 4 TURBS. 12.9

* Rainfall up slope in Kula. no visible water flow in Kihei

* Potential ash fall from Kihei. fires? Nothing visible

Sites with potential for freshwater flow. All
* pH Probe rechecked in Lab after field (checks OK)

TURBIDITY VERIFICATION & PROBE TEMPERATURES

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.04	6.31	56.8	601
Field - Pre-sample	0.06	6.35	56.1	600
Lab - Post sample	0.05	6.34	56.4	601
Probes (+/- 0.2 °C)	D.O	Salinity	pH	Notes
Verify Probe Temps	26.1	25.8	26.8	

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Nutrients	4	NMS	Sharpe

Signature (Team Lead):

[Signature]

Printed Name:

M. Sharpe

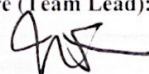
space 0.06

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Kamaole	Samplers (Last Name, 1st Initial)	Graves, Scott. Sharpe, Maile
Session	102		
Date	08/29/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN230829-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	
KWP230829-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS230829-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP230829-N-1	Kalama Park	<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: M. Sharpe
---	----------------------------

Team Uka Wai Oka - Sample Collection Database

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Crevier, D. Bentley, D. Sousa, B.	Meters and Probes ID		
Session	102			HQ2200: 4		2100Q: 2
Date	8/30/2023			pH: 6	DO: 4	Salinity: 8

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 KCP230830	N	8:00am	26.6	33.5	6.73	100.2	8.04	11.4	10.4	10.0	1	0	1
S Maluaka Beach MMB230830	N	8:30am	27.1	35.0	6.72	101.5	8.09	0.68	0.78	0.81	0	1	0
Ahihi Kinau North MAN230830	N	8:52am	26.8	35.0	7.39	111.0	8.09	2.67	2.84	2.74	0	0	0
Ahihi Kinau South MAS230830	N	9:08	26.8	34.9	6.88	103.6	8.07	0.93	0.70	0.83	0	8	0

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

KCP Cove park: 4th reading 10.0 Brownish water
sunny Lots of sediment, calm, lots of surf
MMB Maluaka: Very calm, sunny
MAN Ahihi N: Bigger waves than other sites. No people
4th reading 2.84
MAS Ahihi S: Some people on beach

TURBIDITY VERIFICATION & PROBE TEMPERATURES

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.04	6.31	56.8	601
Field - Pre-sample	0.04	6.33	56.1	602
Lab - Post sample	0.04	6.29	56.3	606
Probes (+/- 0.2°C)	D.O	Salinity	pH	
Verify Probe Temps	26.3	26.6	26.6	

spare 6.06

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Nutrients	4	NMS	Sharpe

Signature (Team Lead):

Printed Name:

Sharpe

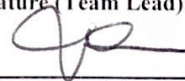
Sites with potential for freshwater flow: Cove Park

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Crevier, D Bentley, D Sousa, B
Session	102		
Date	08/30/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP230830-N-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	
MMB230830-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN230830-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS230830-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:08	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)	AWolf, Baillargeon H Keyhani, C	Meters and Probes ID		
Session	102			HQ2200: 4	2100Q: 2	
Date	08/31/2023			pH: 6	DO: 4	Salinity: 8

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 NMH230831	N	7:55	24.8	35.4	6.63	97.1	8.06	1.78	2.03	1.81	0	0	0
Maalaea Condos NMC230831	N	8:19	24.6	34.0	7.70	111.8	8.11	6.94	3.32	10.4 HB 3.96	0	0	0
Haycraft Park NHP230831	N	8:39	25.2	35.6	7.23	106.6	8.12	3.05	2.70	2.71	0	1	0
Kealia Pond NKP230831	N	9:00	25.5	35.7	7.03	104.5	8.14	2.09	1.25	0.85 1.03	0	1	0
Kihei Canoe Club NKC230831	N	9:17	27.0	34.9	6.73	102.1	8.09	5.63 HB 5.47	21.7	26.2	0	0	0

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

NMH - windy, slight chop, clear skies
 NMC - windy!, slight chop, clear/partly cloudy
 * used silicone oil to clean vial/redo reading
 NMH * no pH liquid/refilled.
 NHP - less windy, slight chop, clear/partly cloudy
 NKP - windy! Dust in air. Smells like manure.
 less than 1ft swell
 NKC - slight wind, 1ft swell, brown water
 clear skies at shore line

TURBIDITY VERIFICATION & PROBE TEMPERATURES

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.04	6.31	56.8	601
Field - Pre-sample	0.06	6.35	56.2	602
Lab - Post sample	0.05	6.34	56.4	600
Probes (+/- 0.2°C)	D.O	Salinity	pH	Notes
Verify Probe Temps	27.3	27.4	27.1	

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Nutrients	5	NMS	ypnd

Signature Team Lead:

[Signature]

Printed Name:

Ylenia M St-Louis

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

Team	North Kihei	Samplers (Last Name, 1st Initial)	Wolf, A Keyhani, C Ballarín, H
Session	102		
Date	08/31/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH230831-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC230831-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:19	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP230831-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:39	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP230831-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	
NKC230831-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:17	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		

Printed Name: _____

фторист

Ylenia Mayen St-Louis