

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



Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
96	Y. St-Louis, M. Sharpe	04/17/2023	0930	L. Yannell, M. Sharpe.	4/21/23	11:00 AM

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 27.7 °C	NIST 25.0 °C	NIST °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	DO #2	June 2024			28.5		24.9			★ Using DO #2 to read temp in the field	
	DO#1	June 2024			27.3		—				
Salinity			3 months	Std Val	Tap water 0.13	Salin Std date ppt	Tap water	Salin Std date ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
										★ Using refractometer. probes not calibrating Refractometer calibrated each sample morning w/distilled water	
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	3	1	1/3/23		99%		—				
	4	2	3/17/23		98%		99.1				
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	
	4	4	4/17/2023		7.00	10.01	7.02	10.04			
	3	5	4/17/2023		7.00	10.01	—	—			
Turbidity			3 months	Std Val	BLANK <0.1 6.75 NTU	LOW 1-10 <0.1 6.75 NTU	BLANK <0.1 6.75 NTU	LOW 1-10 Low 1-10	+ 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	2	n/a	02/13/2023		0.05	6.71	0.04	6.83		Low: 6.75	
	35	n/a	02/13/2023		0.06	6.86	—	—		Low: 6.87	

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

NMS

Hui O Kauai Ola - Sample Collection Datasheet

Team	Kamaole	Samplers (Last Name, 1st Initial)	Y. St-Louis					Meters and Probes ID			
Session	96		K. MacHugh S. Graves H. Hecht					HQ2200 4		2100Q: 2	
Date	04/18/2023							pH: 4	DO: 2	Refractometer Salinity: 25	Lay

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 NKN230418	N	7:47	25.3	33	6.8	91.5	8.10	11.7	11.1	11.2	0	2	0
Waipuilani Park KWP230418	N	8:06	25.2	33	5.91	87.5	8.03	6.18	6.53	6.21	0	2	0
Kihei South KKS230418	N	8:21	25.9	unfiltered 27.5 ppt 30 years	6.18	92.5	8.07	31.5	32.6	37.1	3	1	0
Kalama Park KKP230418	N	9:41	25.7	34	6.64	99.1	8.13	9.92	10.7	11.2	3	6	0

Rained earlier (Am) ~~it~~

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

* Do probe set to 35 ppt Salinity
 * Refractometer used for Salinity value
 * Temp taken from DO probe
 NKN - Low tide, shore break, sunny, brown H₂O,
 KWP - Sunny, Low tide, No shore break, low surf
 Second pH reading 8.05 2nd DO 87.4%
 KKS - No shore break, low tide, sunny, calm,
 * ppt salinity filtered = 30
 KKP + 32.6 37.1 turbidity repeats
 KKP - Low tide, small shore break, sunny,
 No wind, some surf out.
 9.74 additional turbidity
 Sites with potential for freshwater flow: All

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.05	6.75	58.3	593
Pre-sampling	0.06	6.80	57.9	604
Post-sampling	0.06	6.77	58.5	602

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Ylenia Mayen St-Louis

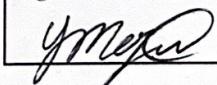
Hui O Kauai - Ola - Sample Collection Datasheet

Team	Kamaole	Samplers (Last Name, 1st Initial)	Y. St-Louis			
Session	96		K. McHugh			
Date	04/18/2023		S. Groues H. Heiht			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN230418-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	747	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	used a refractometer for salinity
KWP230418-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	806	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS230418-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	821	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	reading because salinity probes not calibrating
KKP230418-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	841	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 Mayen St-Louis

Hui O Kauai Ola - Sample Collection Datasheet

Team	North Kihei	Samplers (Last Name, 1st Initial)	Wolf, A	Yannell, L					Meters and Probes ID		
Session	96		Crevier, D					HQ2200 4			2100Q: 2
Date	04/20/2023		Sharpe, M					pH: 4	DO: 2	Refractometer	Salinity: 32.5

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 NMH230420	N	7:47	25.3	33.5	5.92	87.6	8.11	2.80	3.03	2.79	0 0 0
Maalaea Condos NMC230420	N	8:20	25.5	32	7.51	111.8 8.13	8.14	7.81	6.44	5.88	2 0 0
Haycraft Park NHP230420	N	8:41	25.7	32	6.58	98.3	8.13	11.7	11.1	11.4	2 2 0
Kealia Pond NKP230420	N	9:00	25.9	33	6.71	104	8.12	15.3	15.1	16.6	0 0 0
Kihei Canoe Club NKC230420	N	9:30	26.1	31	6.70	100.6	8.08	31.3	29.2	31.1	0 0 0

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

Use the back of the form if needed.

Using refractometer in the field strong Kihei Rain yesterday
 DO set at 35 ppt Salinity
 Temp taken from DO probe

NMC: freshwater not flowing today yet puddles in trough rainstorm yesterday w/ flow into ocean - cloudy 4th turb 6:54 Receding Tide

NHP: sandy suspension @ collection site - cloudy Receding tide, small shore break

NKP: Receding tide, lots of sediment suspended, brown H₂O debris @ high tide line from surge. No freshwater flow today yet was flowing yesterday leaving trail of debris.

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

NKC: Receding Tide very brown H₂O with sediment suspended sunny, little breeze

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.05	6.75	58.3	593
Pre-sampling	0.08	6.89	58.4	603
Post-sampling	0.07	6.82	58.9	602

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

N. Sharpe

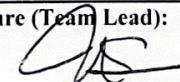
Hui O Ka'au Ola - Sample Collection Datasheet

Team	North Kihei	Samplers (Last Name, 1st Initial)	Wolf, A	Yannell, L
Session	96		Crevier, D	
Date	04/20/2023		Sharpe, M	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH230420-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	* Refractometer
NMC230420N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	Was used for all salinity
NHP230420-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:41	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	readings: ppt/mg/l
NKP230420-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	DO Probe used for temp °C and
NKC230420-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	Oxygen %

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 Kauai Ola - Sample Collection Datasheet

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Dunning, J Yannell, L		X PLEASE NOTE		Meters and Probes ID		
Session	96		Bentley, D		Salinity Probe was RETIRED. Salinity reading taken from Refractometer.		HQ2200 4		2100Q: 2
Date	04/21/2023		Sharpe, M		DO Probe is set at 35ppt. and used for temperature & % oxygen reading.		pH: 4	DO: 2	Salinity: RETIRED

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 KCP230421	N	7:56	25.6	30	6.51	96.6	8.08	5.31	5.04	5.20 ^{NS} 3.89	2	0	2	
S Maluaka Beach MMB230421	N	8:55	26.4	32	6.48	97.4	8.12	1.93	2.29	1.80	0	26	0	
Ahihi Kinau North MAN230421	N	9:22	25.7	33	7.11	105.6	8.17	1.82	1.36 ^{NS} 2.33	2.28	1.35	0	0	0
Ahihi Kinau South MAS230421	N	9:45	25.7	33.5	6.54	97.2	8.09	2.01	1.45	1.64	4	5	0	0

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

Cove Park - murky water, 1 ft shore break
KCP: 4th TURB 5.20 . Fish camp @ shore is permanent.
— fresh water was flowing recently (not today) previous rainfall
MMB: Receding Tide, shore break stirring up sand.
— Wedding on Beach. Fresh water flow from outdoor shower shows in sand mix. twd beach.

MAN: Receding Tide, calm, small clouds. debris roadside
— H₂O yet sunny from previous run off during rain
4th TURB: 1.36
5th TURB: 1.82

MAS: 50% cloud cover, moderate wave action
receding tide, very low
4th TURB 2.00

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	6.75	58.3	593
Pre-sampling	0.09	6.88	58.7	604
Post-sampling	0.04	6.83	58.8	602

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Sharpe

Extra Notes above next to Sampler's names.

★ Wailea's sampling was rescheduled due to heavy rain on Wednesday

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)				
Session	96					
Date	04/21/2023					

PLEASE NOTE

Salinity Probe was RETIRED:
 Salinity reading taken from Refractometer.
 DO Probe is set at 35ppt. and used
 for temperature & % oxygen reading .

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP230421-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:56	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB230421-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN230421-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:22	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS2304121N-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:

