

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
52	M. Brown J. Strickland	9/21/20	11:45am	T. Stark M. Brown	9/24/20	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	n/a	Std Val	NIST	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	2	1	n/a		27.8°C	28.2°C	28.0°C	35.0°C			
	2	2	n/a		27.7		27.8	35.0		NIST Exp. 7/2021	
	2	2	n/a			28.0		35.0		Post NIST is for Salinity probe #2	
Salinity			3 months	Std Val	Tap water	Salin Std	Tap water	Salin Std	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	2	1	8/10/20		0.35	35.2	—	—			
	2	2	8/10/20		0.34	35.0	0.35	35.5		Used Hach STD. Hach Std. opened: 1/13/20 & expires: 8/2024	
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	2	1	10/18/19		98.7		—				
	2	2	10/18/19		103.0		103.6				
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	3	9/21/20		7.699	9.99	—	—			
	2	4	9/21/20		7.00	10.01	7.00	9.96		pH: 6.99 ; 9.99	
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	
	1	n/a	8/30/20		0.06	6.57	—	—		gel std 6.60	
	2	n/a	8/10/20		0.08	6.35	0.05	6.35		" 6.31	

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

Team	Kamaole	Samplers (Last Name, 1st Initial)	GRAYES, S. Hony Hunt Cy R. M. Cy R. R.	Meters and Probes ID		
Session	52			HQ40d: 2		2100Q: 2
Date	9/22/20			pH: 4	DO: 2	Salinity: 2

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			Enterococcus CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal						water	beach	camp
Kalepolepo North NKN200922	N	7:56	26.8	34.6	6.01	91.2	8.10	3.91	3.26	2.90		0	0	0
Waipuilani Park KWP200922	N	8:13	25.4	33.5	6.20	92.8	8.00	21.1	22.9	22.5		1	2	0
Kihei South KKS200922	N	8:30	26.5	33.6	6.61	99.2	8.11	9.54	9.24	10.1		0	0	0
Kalama Park KKP200922	N	8:49	26.7	34.3	6.79	102.9	8.12	18.5	17.2	17.2		2	0	0
Cove Park KCP200922	N	9:04	27.5	34.4	6.38	97.5	8.10	3.51	4.11	3.49		0	0	0

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

Use the back of the form if needed.

KCP - BAIT BUCKET FLOATING APPROX. 10' FROM SHORE

*Sites no longer sampled -, Mai Poina Oe Ia'u,

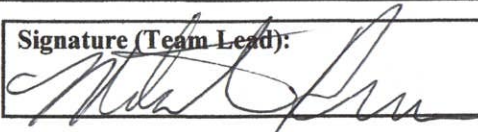
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	6.31	55.6	564
Pre-sampling	0.10	6.36	55.5	564
Post-sampling	0.05	6.36	55.9	564

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment			
Nutrients	5	2/15	M Brown

Signature (Team Lead):



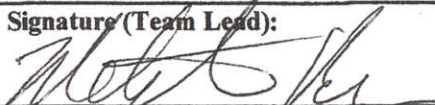
Printed Name:

Mike Brown

Team	Kamaole	Samplers (Last Name, 1st Initial) <i>Graves S.</i> <i>Hecht H.</i> <i>ayr M.</i> <i>ayr R.</i>
Session	52	
Date	9/22/20	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN200922-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	
KWP200922-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS200922-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP200922-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:49	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP200922-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:04	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
		<input type="checkbox"/>	<input type="checkbox"/>		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		

Signature (Team Lead): 	Printed Name: Mitch Brown
--	-------------------------------------

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Allison, A charge, N Dunning, J Sousa, B	Meters and Probes ID		
Session	52			HQ40d: 2		2100Q: 2
Date	9/23/20			pH: 4	DO: 2	Salinity: 2

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			Entero CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal						water	beach	camp
Kilohana Dr WKD200923	⊗	7:56	27	35.2	6.71	102.1	8.13	1.38	1.61	1.52		0	2	0
Keawakapu Beach WKB200923	⊗	8:12	27.3	35.2	6.61	101.2	8.12	0.80	0.92	0.89		2	2	0
Ulua Beach WUL200923	⊗	8:27	27.2	35.0	6.72	102.5	8.11	1.54	1.55	1.33		3	4	0
S Maluaka Beach MMB200923	⊗	8:47	27.4	35.0	6.70	102.8	8.15	0.85	0.92	1.03		0	1	0
Ahihi Kinau North MAN200923	⊗	9:06	27.2	34.9	7.06	107.7	8.07	0.57	0.74	0.69		0	0	0
Ahihi Kinau South MAS200923	⊗	9:23	27.5	35.1	6.59	101.4	8.08	1.26	1.36	1.39		2	0	0

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

Use the back of the form if needed.

* volunteers didn't record
blank in field

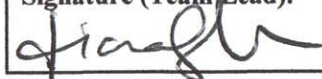
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.31	55.6	564
Pre-sampling		6.37	55.5	566
Post-sampling	0.04	6.33	55.9	564

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	DHS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):



Printed Name:

Tiara Stark

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	ANISON, A. SHARPE, N. DUNNING, J. SOWAN, B.
Session	52		
Date	09/23/20		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD200923-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:56	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB200923-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL200923-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:17	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB200923-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN200923-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS200923-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:23	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:

Tiara Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	G. Burvetre T. Stark R. Bohrer	Meters and Probes ID		
Session	52			HQ40d: 2		2100Q: 2
Date	09/24/20			pH: 4	DO: 2	Salinity: 2

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			Entero CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal						water	beach	camp
Maalaea Harbor NMH200924	N	7:45	26.0	34.2	6.41	95.5	8.05	1.59	1.43 2.12	1.31		0	0	0
Maalaea Condos NMC200924	N	8:10	26.3	33.5	6.87	102.5	8.03	3.46	3.18	3.24		0	0	0
Haycraft Park NHP200924	N	8:27	26.7	34.7	6.71	101.4	8.10	2.80	2.99	2.80		0	2	0
Kealia Pond NKP200924	N	8:48	26.8	35.2	6.81	103.3	8.14	1.42	1.26	1.37		1	1	0
Kihei Canoe Club NKC200924	N	9:10	27.8	34.9	6.72	103.5	8.11	1.28	3.12	4.10 5.48		0	0	0

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

NMH: windy * Wailuku & Kihei rain
NMC: windy night before
NHP: windy
NKP: SCUBA diver
NKC: suspended material in sample

Sites with stream outflow: Kealia

WINDY
* Tina observe /
refresher today

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	6.31	55.6	564
Pre-sampling	0.09	6.37	55.5	565
Post-sampling	0.05	6.35	55.8	563

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	DHS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):

Tina Stark

Printed Name:

Tina Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	G. Burette F. Bahr T. Stark
Session	52		
Date	9/24/20		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH200924-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC200924-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	
NHP200924-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:27	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP200924-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:48	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB200924-N-1	Sugar Beach	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	* site paused
NKC200924-N-1	Kihei Canoe Club	<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:

Tiara Stark