

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
54	J. Strickland ; M. Brown	11/2/20	10:30	T. Stark, M. Brown	11/5/20	9:45 am

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST	n/a	Exp: 7/2021 n/a	Std Val	NIST	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	1	2	n/a		27.9°C	27.9°C	— °C	27.6°C			
	1	1	n/a		27.7		—			NIST Exp: 7/2021	
	1	1	n/a			27.8		27.4			
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	
	1	2	11/10/20		.30	9/2025 date 35.0 ppt	0.30	9/2025 date 35.0 ppt			
	1	1	11/10/20		.33	34.6	0.33	34.7		USED NIST Std Exp 9/2025	
	1	1	11/10/20		.34	34.5	—	—		opened 11/2/20	
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	2	11/2/20		99.9		100.4				
	1	1	11/2/20		100.4		—				
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	
	1	2	11/2/20		7.00	9.97	7.01	9.98			
	1	3	11/2/20		6.99	9.96	—	—			
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10	BLANK <0.1	LOW 1-10	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	2	n/a	8/10/20		0.08	6.31	0.09	6.38		Std. 6.31	
	1	n/a	8/21/20		0.05	6.58	—	—		Std. 6.60	

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

used #2 meter for post verification

Team	Kamaole	Samplers (Last Name, 1st Initial)	GRAVES, S. 96.9 HEAT, A. 97.0 CYR, R. 97.5 CYR, M. 92.3	Meters and Probes ID		
Session	54			HQ40d: 2		2100Q: 2
Date	11/3/20			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
Kalepolepo North NKN201103	N	7:47	27.0	34.9	5.82	88.7	8.11	1.88	2.63	2.34		2	5	0
Waipuilani Park KWP201103	N	8:07	26.4	33.1	5.96	89.1	8.04	21.6	24.2	21.1		0	1	0
Kihei South KKS201103	N	8:18	27.4	34.3	5.99	90.2	8.10	3.60	3.32	3.46		1	6	0
Kalama Park KKP201103	N	8:36	27.5	34.4	5.98	91.6	8.08	2.85	3.29	3.40		0	6	0
Cove Park KCP201103	N	8:52	27.2	34.0	5.79	88.1	8.09	2.76	2.79	3.99		0	4	0

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

21.6

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

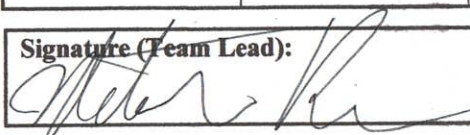
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	6.31	55.6	564
Pre-sampling	0.09	6.30	55.8	564
Post-sampling	0.09	6.35	55.9	564

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	dihs	MBrown

Signature (Team Lead):



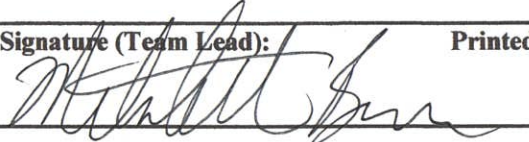
Printed Name:

Mitch Brown

Team	Kamaole	Samplers (Last Name, 1st Initial) Groves S. Hecht H Cyr R Cyr M
Session	54	
Date	11/3/20	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN201103-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP201103-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:07	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS201103-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP201103-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:36	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP201103-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	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
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Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	J. Dunning, B. Souza, A. Wolf	Meters and Probes ID		
Session	54			HQ40d: 2		2100Q: 2
Date	11/04/20			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	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					CFU	water	beach	camp
Kilohana Dr WKD201104	N	7:54	27.1	35.1	6.54	99.9	8.12	0.74	0.92	0.92		Ø	5	Ø
Keawakapu Beach WKB201104	N	8:14	27.3	35.2	6.45	98.9	8.11	0.65	0.60	0.79		Ø	2	Ø
Ulua Beach WUL201104	N	8:28	27.2	35.1	6.53	99.9	8.13	0.93	0.92	0.90		3	4	Ø
S Maluaka Beach MMB201104	N	8:50	27.2	35.2	6.33	96.9	8.13	0.49	0.52	0.40		2	3	Ø
Ahihi Kinau North MAN201104	N	9:12	26.9	35.0	6.74	102.4	8.03	1.17	1.05	1.19		Ø	2	Ø
Ahihi Kinau South MAS201104	N	9:29 9:30	27.2	34.8	6.37	97.5	8.06	1.51	1.46	1.70		Ø	2	Ø

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

Use the back of the form if needed.

HD40D (2) having trouble turning on.
Turn + on, ✓d batteries and then it
worked.

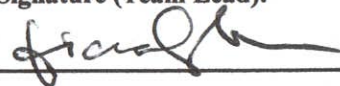
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.09	6.31	55.6	564
Pre-sampling	0.10	6.30	55.6	565
Post-sampling	0.08	6.36	55.7	565

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)	J. Dunning B. Souza A. Wolf
Session	54		
Date	11/04/20		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD201104-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:54	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB201104-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:14	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL201104-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:28	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB201104-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN201104-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS201104-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	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)	T. Wildberger F. Bahr T. Stark	Meters and Probes ID		
Session	54			HQ40d: 2 2		2100Q: 2
Date	11/5/20			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	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					CFU	water	beach	camp
Maalaea Harbor NMH201105		7:51	26.7	34.7	6.02	91.1	8.11	1.01	1.15	1.07		0	0	0
Maalaea Condos NMC201105		8:09	26.8	34.6	6.53	99.1	8.05	9.06	8.55	9.27		0	0	0
Haycraft Park NHP201105		8:26	27.0	34.7	6.48	98.7	8.10	12.1	11.4	12.1		0	0	0
Kealia Pond NKP201105		8:46	27.1	35.1	6.55	100.1	8.14	1.86	1.51	1.38		0	0	0
Kihei Canoe Club NKC201105		9:00	27.7	35.0	6.39	98.7	8.13	2.90	3.98	3.41		2	3	0

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

Use the back of the form if needed.

SUNNY, CLEAR, NO WIND

NMC - HIGH TIDE 1.5' S. SWELL

* NEW ENTRY SITE 25 YARDS E. OF STEPS
TALLEST PALM TREE

NHP - CRAZY FLIES, SMALLER SWELL

NKP - FLAT

NKC - SMALL SWELL 4.50 → 4th turbidity reading
- some suspended material
in the bottle

Sites with stream outflow: Kealia

Rogue wave soaked record keeper (sorry)

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05-0.08	6.31	55.6	564
Pre-sampling	0.12	6.36	55.2	564
Post-sampling	0.09	6.38	55.5	565

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Tiara Stark

Printed Name:

Tiara Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	T. Wildberger F. Bahr T. Stark
Session	54		
Date	11/5/20		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH201105-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:51	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC201105-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:09	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP201105-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP201105-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:46	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC201105-N-1	Kihei Canoe Club	<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):

fionah

Printed Name:

Tiara Stark