

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
64	T. Stark, N. Sampson	05/31/21	10:00 am	T. Stark N. Sampson	8:30 am	6/4/21

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature Exp: 10/16/22	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		27.2 °C	27.2 °C	— °C	25.1 °C			
	2	2	n/a		27.5	27.5	—	25.3			
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	5/31/21		0.32	5/10/21 date 35.0 ppt	0.32	5/10/21 date 35.0 ppt			
	2	2	5/31/21		0.35	35.1	0.35	34.8			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	2	1	11/2/20		99.6		—				
	2	2	11/2/20		98.9		99.9				
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	3/31/21		7.01	9.97	—	—			
	2	4	3/31/21		7.01	9.98	7.02	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	6/8/21		0.13	6.70	—	—		STD: 6.66	
	2	n/a	6/8/21		0.05	6.53	NA	NA		STD: 6.48	

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

Lab: DHS

\* Did post-verification 1 day late b/c used equipment to train Nalei.

Turbidity meter not working



Team	Kamaole	Samplers (Last Name, 1st Initial)	Rik Cyr Mauve Cyr Scott Graves Havry Hecht	Meters and Probes ID		
Session	64			HQ40d: 2		2100Q: 2
Date	6/1/21			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	cam
Kalepolepo North NKN210601	N	8:01	26.2	33.4	5.99	89.1	8.09	3.74	3.54	4.10	NA	0	4	0
Waipuilani Park KWP210601	N	08:21	27.0	33.2	5.41	81.5	8.03	6.64	6.25	6.69	NA	0	0	0
Kihei South KKS210601	N	08:34	27.5	32.2	5.97	90.1	8.08	3.57	4.07	3.69	NA	0	0	0
Kalama Park KKP210601	N	09:02	26.8	34.8	6.62	100.4	8.16	3.46 2.44 4.5	4.25	4.22	NA	2	5	0

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

KKP: 4<sup>th</sup> Reading 3.46

Low post 3rd  
Had 6.51 cleared  
w/ Kimwipe after black cloth

Sites with potential for freshwater flow: All

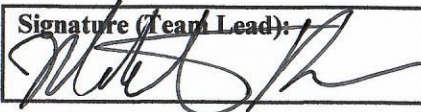
## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.48	55.6	574
Pre-sampling	0.16	6.54	55.8	575
Post-sampling	0.08	7.10	56.1	574

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment			
Nutrients	4	dits	M Brown

Signature (Team Lead):



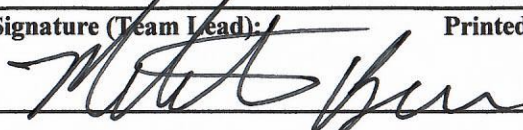
Printed Name:

Mitch Brown



<b>Team</b>	Kamaole	<b>Samplers (Last Name, 1st Initial)</b>	Cyr R Cyr M Graves S. Hecht H.
<b>Session</b>	64		
<b>Date</b>	6/1/21		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
NKN210601-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP210601-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS210601-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP210601-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

<b>Signature (Team Lead):</b> 	<b>Printed Name:</b> Mitch Brown
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<b>Team</b>	Wailea-Makena	<b>Samplers</b> (Last Name, 1st Initial)	B. Sousa, J. Dunning, M. Sharpe	<b>Meters and Probes ID</b>		
<b>Session</b>	64			HQ40d: 2		2100Q: 2
<b>Date</b>	06/02/21			pH: 4	DO: <del>1</del> 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)			Entero	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					CFU	water	beach	camp
Cove Park KCP210602	N	8:36	27.2	32.4	6.55	98.6	8.06	2.29	2.18	2.64	-	3	3	N
S Maluaka Beach MMB210602	N	9:22	26.4	35.6	6.53	98.5	8.14	0.92	0.93	0.89	-	11	16	N
Ahihi Kinau North MAN210602	N	9:47	26.2	35.6	7.09	106.7	8.12	0.80	1.04	1.02	-	1	5	N
Ahihi Kinau South MAS210602	N	10:06	26.5	35.3	6.62	100.2	8.08	0.90	0.84	0.68 0.84	-	7	16	N

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

Cove Park { Dog in water @ Cove Park  
 Restested blank x 2: 0.22, 0.24  
 2 men and two dogs live at Cove Park  
 at the South end  
 second salinity tested at MAS2 - 35.2

Sites with potential for freshwater flow: Cove Park

#### TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	6.48	55.6	574
Pre-sampling	0.20	6.52	56.0	575
Post-sampling	0.06	6.49	55.9	574

#### CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	DHS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):

*[Signature]*

Printed Name:

Tiara Stark



<b>Team</b>	Wailea-Makena	<b>Samplers (Last Name, 1st Initial)</b>	B. Sousa J. Dunning M. Sharpe
<b>Session</b>	64		
<b>Date</b>	06/02/21		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
KCP210602-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:36	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB210602-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:22	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN210602-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS210602-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:06	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

<b>Sediments</b>							
		<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		

<b>Signature (Team Lead):</b> 	<b>Printed Name:</b> Tiara Stark
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Team	North Kihei	Samplers (Last Name, 1st Initial)	Bunnell, G Wolf, A	Fio Balw	Meters and Probes ID		
Session	64				HQ40d: 2		2100Q: 2
Date	06/03/21				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)			Enterococci CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal						water	beach	camp
Maalaea Harbor NMH210603	N	0745	25.2	34.7	6.25	92.4	8.14	3.09	3.67	3.74	-	0	0	0
Maalaea Condos NMC210603	N	0805	25.1	33.8	7.29	107.1	8.13	1.81	1.31	1.85	-	0	0	0
Haycraft Park NHP210603	-	0820	25.6	35.5	6.66	99.6	8.16	*	*	*	-	2	5	1
Kealia Pond NKP210603	N	0845	25.6	35.6	6.65	99.4	8.16	*	*	*	-	0	5	0
Kihei Canoe Club NKC210603	N	0905	26.4	34.9	6.56	98.7	8.12	*	*	*	-	2	5	0

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

\*Turbidity meter not functioning.  
AT NHP TURBIDITY METER TURNED ON AND THEN  
FROZE..WOULD NOT READ, WOULD NOT TURN OFF.  
OPENED BATTERY CASE AND TOSTLED THE BATTERIES, REMOVED  
BATTERIES AND REPLACED THEM. METER WOULD NOT  
TURN BACK ON. PUT NEW BATTERIES IN THE METER.  
METER WOULD STILL NOT TURN ON. NOTICED CORROSION  
ON A COUPLE OF THE BATTERY CONTACT POINTS.

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

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	6.48	55.6	574
Pre-sampling	0.05	6.46	53.8	575
Post-sampling	*			

## CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Tiara Stark

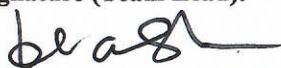
\* Turbidity meter not turning on. Will call Hach asap. Life  
expectancy 5-10 yrs. - Tiara



Team	North Kihei	Samplers (Last Name, 1st Initial)	Burnette, G. Wolf, A.	Bahr, F.
Session	64			
Date	06/03/21			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
NMH210603-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	
NMC210603-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP210603-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP210603-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC210603-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

<b>Sediments</b>							
		<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
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