

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
72	T. Stark	11/15/21	11:30 am	T. Stark, G. Burrette	11/18/21	9:40 am x.s.

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	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	2	3	10/16/22		24.0 °C	24.7 °C	— °C	25.3 °C		pre temp: 22.5 °C	
	2	2				24.9		25.4		post: 17.4 °C	
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	3	11/15/21		0.13	8/15/21 date 33.6 ppt	0.13	8/15/21 date 33.6 ppt		Using 0.13 ppt for tap water We back at NMS.	
	2	2	11/15/21		0.17	33.3	0.15	33.3		Used salinity secondary std. from Monday (parafilm ed over weekly)	
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	2	1	11/2/20 10/07/2		96.1		—			Can't find O <sub>2</sub> in replacement kit - need to order new one	
	2	2	11/2/20		99.8		100.6				
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	11/15/21		6.98	10.00	—	—			
	2	4	11/15/21		7.01	10.01	7.02	10.02			
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	10/25/21		0.04	6.73	—	—		Low std: 6.74	
	2	n/a	10/25/21		0.04	6.21	0.04	6.21		Low std: 6.14	

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

Lab: NMS

Was able to fix Turb #1 by putting foam over batteries to keep them firmly in.



Team	Kamaole	Samplers (Last Name, 1st Initial)	GRAVES, S. (GRIBEN 4) Hecht, H Cyr m Cyr, R	Meters and Probes ID		
Session	72			HQ40d: 2	2100Q: 2	
Date	11/16/2021			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)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
Kalepolepo North NKN211116	N	8 AM	25.9	33.7	<del>5.88</del> 5.88	87.2	8.11	1.72	1.80	2.31	See note →	✓	
Waipuilani Park KWP211116	N	8:18	25.4	32.7	5.99	88.1	8.05	12.7	12.2	12.7	✓	3	✓
Kihei South KKS211116	N	8:39	26.3	33.5	5.77	86.1	8.06	5.00	5.15	4.42	✓	1	✓
Kalama Park KKP211116	N	8:55	26.0	34.6	6.49	97.4	8.12	5.30	4.72	4.47	0	1	✓

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

NKN: 4 Kihei Canoe boats up on shore ~ 30 people at fish pond standing on sand beach within 100 feet, boats and people.  
8:06 probes in H<sub>2</sub>O 8:09 start reading  
KWP: 8:25 in - 8:29 start reading probes  
KKS: 8:41 in - 8:43 read.  
KKP: 9:00 in - 9:03 read

Sites with potential for freshwater flow: All

#### TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.04	6.14	53.5	579
Pre-sampling	0.04	6.20	53.1	579
Post-sampling	0.03	6.20	53.4	579

#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):


Printed Name:

*[Signature]* Tiara Stark

Team	Kamaole	Samplers (Last Name, 1st Initial)	Graves, S. Hecht, H.	Cyr, M. Cyr, R.
Session	72			
Date	11/16/2021			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN211116-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	
KWP211116-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS211116-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:39	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP211116-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	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 Stank



Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Wolfe, A, Sousa, B, Sharpe, M	Meters and Probes ID			
Session	72			HQ40d:	2	2100Q:	2
Date	11/17/2021			pH:	4	DO:	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)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
Cove Park KCP211117	N	8:30	26.5	32.3	5.99	89.2	8.08	1.97	2.84	2.97*	20045	0	Yes
S Maluaka Beach MMB211117	N	9:10	26.7	35.2	6.51	99.0	8.16	0.63	0.58	0.68	4	16	0
Ahihi Kinau North MAN211117	N	9:20	26.8	34.6	7.62	115.6	8.12	2.44	2.86	2.77	6	12	0
Ahihi Kinau South MAS211117	N	9:42	26.9	34.4	6.54	99.4	8.09	0.84	0.88	0.81	7	5	0

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

Cove: 2 dogs in H<sub>2</sub>O  
Fish Campers @ Shore = permanent site  
\*4<sup>th</sup> Reading: 3.19

Sites with potential for freshwater flow: Cove Park

#### TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.03	6.14	53.5	579
Pre-sampling	0.05	6.21	53.3	580
Post-sampling	0.03	6.19	53.6	579

#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

*[Signature]*

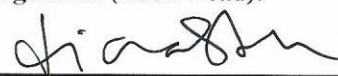
Printed Name:

Tiara Stark

Team	Wailca-Makena	Samplers (Last Name, 1st Initial)	Wolfe, A. Sousa, B.	Sharpe, M.
Session	72			
Date	11/17/2021			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
KCP211117-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB211117-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN211117-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS211117-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:42	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



Team	North Kihei	Samplers (Last Name, 1st Initial)	BURNETTE, G. BAHA, F	Meters and Probes ID		
Session	72			HQ40d: 2	2100Q: 2	
Date	11/18/2021			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)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
Maalaea Harbor NMH211118	N	0750	26.2	34.9	6.04	90.8	8.12	0.71	0.73	6.71	0	6	0
Maalaea Condos NMC211118	N	0810	26.3	34.3	6.77	101.7	8.07	0.92	1.07	0.87	2	0	0
Haycraft Park NHP211118	-	0830	26.5	34.6	6.42	97.0	8.12	3.73	3.62	3.88	1	5	0
Kealia Pond NKP211118	N	0850	26.1	35.4	6.63	99.9	8.17	0.58	0.64	0.65	1	1	0
Kihei Canoe Club NKC211118	N	0910	26.7	34.7	6.56	99.5	8.14	1.53	1.55	1.57	0	20	0

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

CALM WINDS AND VERY LOW SURF TODAY  
BOTH METERS WORKED WELL TODAY  
DOUBLE CANOE JUST PULLED FROM BEACH  
AT NKC  
SALINITY AT NKP ABOVE 35 WHICH IS NORMAL TIDE

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

TURBIDITY VERIFICATION				
	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.03	6.14	53.5	579
Pre-sampling	0.05	6.25	53.4	580
Post-sampling	0.05	6.21	53.5	579


CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):	Printed Name:
<i>[Signature]</i>	Tiara Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	Burrette, G. Bahr, F.
Session	72		
Date	11/18/2021		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH211118-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC211118-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	
NHP211118-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP211118-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC211118-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