

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
5m31	M. Brown J. Strickland	4/29/19	8:33	J. Strickland	5/3/19	11:00

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 26.0 °C	NIST 26.0 °C	NIST 30.1 °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water
	1	1	n/a		26.0		30.1		
	1	2	n/a			25.9			
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 2/25/18 date 33.4 ppt	Tap water 33.5 ppt	11/19 ± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	1	1	2/25/19		0.12	33.6	0.12	33.6	
	1	2	2/25/19		0.12	33.8			
Dissolved Oxygen			1 year	Std Val	100%	100%	± 5 %		
	1	1	10/1/18		100.1	101.2			
	1	2	10/1/18		102.8				
pH			3 weeks	Std Val	pH 7.00	pH 10.00 9.99	pH 7.00	pH 10.00	± 0.1 pH of pH std value
	1	1	4/29/19		7.01	10.04	7.02	10.00	Compare to Manufacturer pH Std value on bottle
	1	2	4/29/19		7.00	10.01			
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 6.67 NTU	BLANK <0.1	LOW 1-10 6.62 NTU	± 0.18 NTU Low 1-10
	1	n/a	2/18/19		0.06	0.45	0.04	6.40	Compare to Gel LOW 1-10 Std Calibration value
	2	n/a	—		—	—			

QA: * Are pre- and post within one week?

* Delay times are ok?

* Other equipment issues?

pH 10 ; Exp 5/2020

Team	Kamaole	Samplers (Last Name, 1st Initial)	<i>Mitch Brown</i> <i>Scott GAOES</i>						Meters and Probes ID				
Session	31								HQ40d: 1		2100Q: 1		
Date	4/30/19							pH: 1	DO: 1		Salinity: 1		

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)	People (within 100 ft)				
					(mg/L)	(%) 85-105 normal			water	beach	camp		
Kalepolepo North NKN190430	NA	8AM	24.9	30.1	6.70	95.6	8.11	4.89	6.80	6.20	0	2	0
Waipuilani Park KWP190430	NA	8:24	24.2	30.3	6.16	87.0	8.04	10.32 8.48	10.0	10.0	0	1	0
Kihei South KKS190430	NA	8:47	25.5	32.9	6.20	90.9	8.10	3.93	4.45	4.25	0	3	0
Kalama Park KKP190430	N	9:10	25.8	34.2	6.87	102.0	8.13	10.8	11.6	12.4	4*	5	0
Cove Park KCP190430	NA	9:35	26.0	31.5	7.12	104.6	8.12	5.74 10.40	9.32	7.77	0	1	0

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

WINDY @ NKN 15-20 mph
" KWP 20+ mph
KWP took 2nd pH 8.0f no change
took 3rd reading @ KWP
to 8/L 4th " @ KCP
KCP surfers

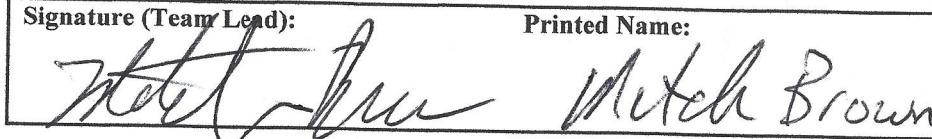
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	.06	6.62	58.4	600
Pre-sampling	0.08	6.50	58.2	600
Post-sampling	0.07	6.52	58.5	599

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):



Printed Name:

Sites with streams/outflows: Kalepolepo North, Kalama Park, Cove Park

Team	Kamaole	Samplers (Last Name, 1st Initial)	<i>M Brown</i> <i>S Gravels</i>			
Session	31					
Date	4/31/19					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN190430	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP190430	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:24	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS190430	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP190430	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP190430	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead): *M Brown* Printed Name: *Madeleine Brown*

Team	Makena	Samplers (Last Name, 1st Initial)	<i>B. Souza, T. Dunning, S. Fries M. Sharpe</i>						Meters and Probes ID			
Session	31								HQ40d: 1		2100Q: 1	
Date	5/1/19				pH: 1		DO: 1		Salinity: 1			

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)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
Makena Landing MML190501	NA	7:53	24.9	33.8	6.67	97.1	8.12	0.89	1.06	1.17	2	2	0
S Maluaka Beach MMB190501	NA	8:15	25.2	34.0	6.76	95.5	8.11	1.33	1.61	1.45	1	9	0
Oneuli MON190501	NA	8:44	25.0	34.1	6.79	99.8	8.08	2.11	2.31	2.13	0	3	0
Ahihi Kinau North MAN190501	NA	9:04	25.2	34.8	7.36	108.9	8.10	1.66	1.60	1.35	0	0	0
Ahihi Kinau South MAS190501	NA	9:44	26.2	33.9	6.73	100.6	8.04	1.50	1.35	1.35	0	0	0

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

Use the back of the form if needed.

Please note - 1 broken syringe
 & 4 dead batteries are
 marked w/yellow tape! :)

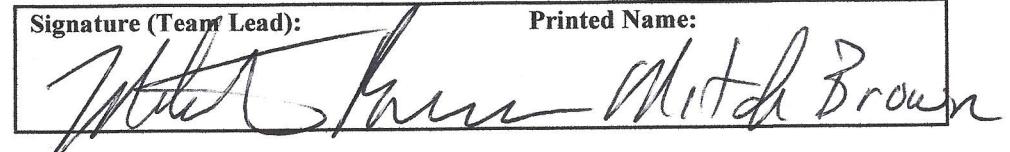
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.07	6.62	58.4	600
Pre-sampling	0.05	6.46	58.3	601
Post-sampling	0.04	6.41	58.7	600

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NWS	Mitch Brown
Bacteria	-	-	-

Signature (Team Lead):



Printed Name:

Team	Makena	Samplers (Last Name, 1st Initial)
Session	31	
Date	5/1/19	

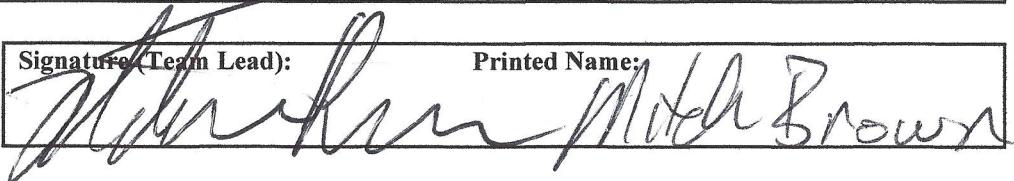
B. Sousa J. Daunring
M. Sharpe S. Fries

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML190501	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:53	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB190501	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON190501	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:46	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN190501	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:04	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS190501	Ahihi-Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:44	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

Printed Name:



Team	North Kihei	Samplers (Last Name, 1st Initial)	Bahr, F.	Rybalk, M.		Meters and Probes ID		
Session	31		Rybalk, D	Strickland, J		HQ40d: 1		
Date	5/2/19					pH: 1	DO: 1	Salinity: 1

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)	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal			water	beach	camp
Haycraft Park NHP190502		8:20 AM	24.9	34.4	6.96	102.0	8.09	254	3.38	4.17	0 3 0
Kealia Pond NKP190502		8:52 AM	25.0	35.1	6.78	100.0	8.15	89	.91	1.03	0 3 0
Sugar Beach NSB190502		9:20AM	25.6	34.6	6.75	100.5	8.12	5.18	5.07	5.10	2 3 0
Kihei Canoe Club NKC190502		9:40AM	25.9	34.0	6.73	100.3	8.09	7.79	12.8	12.5	0 1 0
Mai Poina Oe Iau NMP190502		10:01AM	25.6	32.2	6.59	96.9	8.07	5.54	6.05	6.42	0 0 0

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

Use the back of the form if needed.

NHP : 4th READING 5.87 NTU
 NKC : 4th READING 14.2 NTU - The cap was leaking into the machine. We redid the test and it came out 7.79 NTU. The second and third were 12.6 and 12.9. There is an unidentified leak (300 gal. an hr.) at the canoe club! - According to a club member on the beach.

First time out as trained for new volunteers Deborah & Michael.

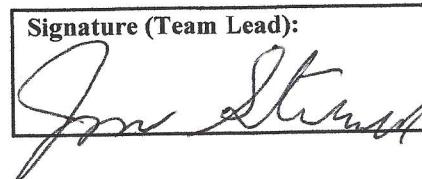
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.62	58.4	600
Pre-sampling	0.05	6.48	58.6	600
Post-sampling	0.04	6.47	58.4	598

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	J. Strickland
Bacteria	-	-	-

Signature (Team Lead):


 Jim Strickland

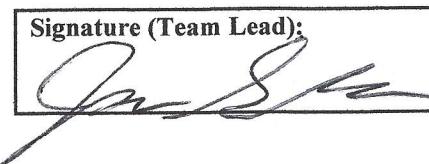
Printed Name:


 James Strickland

Team	1	Stream/outflows:	
Session	31	Samplers (Last Name, 1st Initial)	Bahr, F Rybok, M
Date	5/2/19		Rybok, D Strickland, J

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP190502	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP190502	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB190502	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC190502	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP190502	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:01	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):  Printed Name: James Strickland

Team	Wailea	Samplers (Last Name, 1st Initial)	Seraph D'Alenta Jordie Judy Kimmel, Jody	Taylor, Sanders J Strickland	Meters and Probes ID				
Session	31				HQ40d: 1		2100Q: 1		
Date	5/3/19				pH: 1	DO: 1	Salinity: 1		

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)	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal			water	beach	camp
Kilohana Dr WKD190503	N	8:09	25.4	34.4	6.80	100.7	8.12	1.58	1.29	1.26	1
Keawakapu Beach WKB190503	N	8:32	25.8	35.0	6.73	100.9	8.14	0.50	0.49	.45	4
Ulua Beach WUL190503	N	8:57	26.3	34.3	6.68	100.8	8.10	1.51	1.46	1.45	20
Palauae WPL190503	N	9:28	26.6	34.4	6.87	104.4	8.17	1.07	1.62	1.84	2
Poolenalena WPO190503	N	9:48	26.4	34.6	6.78	102.4	8.17	0.94	0.83	0.84	3

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

Use the back of the form if needed.

First time out as being trained for
new volunteers Jody & Taylor.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.68	58.4	600
Pre-sampling	0.04	6.49	58.6	600
Post-sampling	0.04	6.40	58.7	598

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	J. Strickland
Bacteria	-	-	-

Signature (Team Lead):

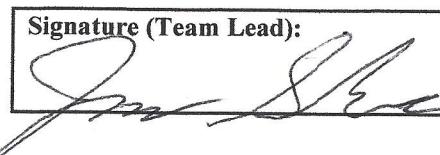
Printed Name:

James Strickland

Team	Wailea	Samplers (Last Name, 1st Initial)	D'Alento, S	Sanders, T
Session	31		Jarvis, J	Strickland, J
Date	5/3/19		Kimmel, J	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD190503	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:09	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB190503	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:32	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL190503	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:57	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL190503	Palauea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:28	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO190503	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:48	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	
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml	

Signature (Team Lead):  Printed Name: James Strickland