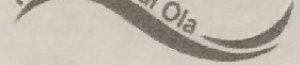


FIELD EQUIPMENT VERIFICATION (PRE/POST A WEEKLY SAMPLING):



Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
22	M. Brown G. Bernette	10/22/2018	8:53am			

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		26.0	26.3	—	26.2			
	2	2	n/a			26.7		26.2			
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	10/1/18		0.13	32.6	0.13	32.6			
	2	2	10/1/18		0.14	33.1	0.13	33.2			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	2	1	10/1/18		101.7		—				
	2	2	10/1/18		101.3		101.9				
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	1	10/22/18		7.03	10.06	—	10.0			
	2	2	10/22/18		7.02	10.06	7.06	10.08			
Turbidity			3 months	Std Val	BLANK	LOW 1-10	BLANK	LOW 1-10	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	2	n/a	10/1/18		0.03	6.27	—	—			
	2	n/a	10/1/18		0.03	6.01	0.03	6.01			

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

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Kamaole	Samplers (Last Name, 1st Initial) Harry Heck Scott Graves Donna Howard	Meters and Probes ID		
Session	22		HQ40d: 2		2100Q: 2
Date	10/23/18		pH: 2	DO: 2	Salinity: 2

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Normal Values			variable	30 - 35 ppt		85 - 105%	8 - 8.3	variable					
Kalepolepo North NKN181023	N	8:08	26.8	33.6	6.21	98.7	8.13	3.36	4.27	4.36	1	18	0
Waipuilani Park KWP181023	N	8:17	26.0	34.4	6.51	97.7	8.09	17.1	17.6	18.4	0	2	2
Kihei South KKS181023	N	8:38	26.6	34.1	6.58	99.3	8.09	9.64	10.9	11.7	3	10	0
Kalama Park KKP181023	N	8:51	27.3	35.1	6.75	103.2	8.15	5.73	7.29	9.24	10	2	0
Cove Park KCP181023	N	9:08	27.4	34.3	6.80	104.0	8.14	6.97	7.45	7.80	50	0	0

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

8:37 1st Reading at Kalama
Cove Park Redo 1st Reading ~~that~~

TURBIDITY VERIFICATION

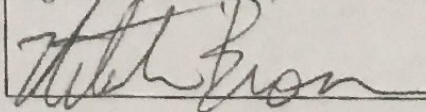
	Blank (must be <0.10)	Low	Med	High
Standard	0.03	6.00	55.6	590.0
Pre-sampling	0.04	6.02	56.3	590.0
Post-sampling	0.03	5.98	56.2	589.0

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:



Mitch Brown

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

Team	Kamaole	Samplers (Last Name, 1st Initial)	Hecht H. Graves S. Howard D.
Session	22		
Date	10/23/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN181023-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:08	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP181023-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:17	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS181023-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP181023-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:51	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP181002-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:08	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

Team	Makena	Samplers (Last Name, 1st Initial) <i>DUNN, J SHANE, M</i> <i>BURKE, G</i>	Meters and Probes ID		
Session	22		HQ40d: 2		2100Q: 2
Date	10/24/2018		pH: 2	DO: 2	Salinity: 2

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Makena Landing MML181024	N	8:00	27.2	34.7	6.66	102.0	8.13	5.35	4.96	6.17	∅	∅	∅
S Maluaka Beach MMB181024	N	8:22	27.5	35.2	6.65	102.9	8.16	2.57	2.44	3.00	∅	∅	∅
Oneuli MON181024	N	8:44	27.5	34.7	6.70	103.2	8.10	2.62	3.09	3.00	8	∅	∅
Ahihi Kinau North MAN181024	N	9:09	27.6	35.0	7.00	108.3	8.09	1.45	1.95	1.98	7	8	∅
Ahihi Kinau South MAS181024	N	9:33	27.7	34.7	6.67	103.2	8.11	1.72	1.74	1.64	2	14	∅

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

*while filtering sample,
 oneuli - flange broke on syringe; repeated
 sample collection and*

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.03	6.00	55.6	590
Pre-sampling	0.04	6.06	56.3	590
Post-sampling	0.05	5.99	56.3	589

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Gen C. Hansen

GENE C. HANSEN

Sites with streams/outflows: Makena Landing

Team	Makena	Samplers (Last Name, 1st Initial) <i>DUNN, J. SHARPE, M.</i> <i>BREWER, G.</i>
Session	22	
Date	10/24/2018	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML181024-N-1	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB181024-N-1	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:22	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON181024-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:44	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN181024-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:09	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS181024-N-1	Ahihi-Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:33	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): <i>[Signature]</i>	Printed Name: GABRIEL G. BREWER JR.
--	--

Team	North Kihei	Samplers (Last Name, 1st Initial)	Riley, R. SPANN, S.	BURNETT, G.	Meters and Probes ID			
Session	22				HQ40d: 2		2100Q: 2	
Date	10/25/18				pH: 2		DO: 2	

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Haycraft Park NHP181025	N	8:16	WAVES TOO HIGH					2.89			8	4	5 tests
Kealia Pond NKP181025	N	8:30	27.1	35.2	6.72	103.0	8.19	2.89	2.86	2.73	0	2	0
Sugar Beach NSB181025	N	8:50	27.1	35.0	6.62	101.3	8.15	3.64	3.15	3.60	3	5	0
Kihei Canoe Club NKC181025	N	9:15	27.6	34.7	6.68	102.9	8.15	16.4	15.7	16.4	0	14	0
Mai Poina Oe Iau NMP181025	N	9:33	27.8	34.9	6.67	103.3	8.18	1.82	1.89	1.71	4	5	0

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

Tried several times to get the blank to read < 0.10 UNSUCCESSFUL. USED BLACK CLOTH
NHP - waves too high to collect samples

TURBIDITY VERIFICATION

	Blank (must be < 0.10)	Low	Med	High
Standard	0.05	6.00	55.6	590
Pre-sampling	0.10	5.93	56.2	591
Post-sampling	0.05	5.99	56.5	590

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

George C. Burnett

Printed Name:

GEORGE C. BURNETT

Sites with streams/outflows: Kealia Pond

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	North Kihei	Samplers (Last Name, 1st Initial) <i>Robert R. Bunnell, G. SPLASH, S.</i>
Session	22	
Date	10/25/18	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP181025-N-1	Haycraft Park	<input type="checkbox"/>	<input type="checkbox"/>	8:16	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	WASH TO H2O
NKP181025-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB181025-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC181025-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP181025-N-1	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:33	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): <i>Robert R. Bunnell</i>	Printed Name: George C. Bunnell
--	------------------------------------

Team	Wailea	Samplers (Last Name, 1st Initial) <i>Rindge, Holly</i> <i>Alfred Wolf</i> <i>Judy</i>	Meters and Probes ID		
Session	22		HQ40d: 1		2100Q: 1
Date	10/26/18		pH: 1	DO: 1	Salinity: 1

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%)					water	beach	camp
Kilohana Dr WKD181026	N	7:55	26.9	35.4	6.72	103.0	8.17	0.90	0.90	0.90	3	3	0
Keawakapu Beach WKB181026	N	8:14	27.2	35.4	6.73	103.6	8.18	0.62	0.60	0.66	4	7	0
Ulua Beach WUL181026	N	8:34	27.1	35.3	6.73	103.3	8.16	1.77	2.10	1.72	9	17	0
Palauea WPL181026	N	8:55	27.4	35.4	6.74	103.7	8.17	2.40	2.47	2.39	0	6	0
Poolenalena WPO181026	N	9:11	27.7	35.4	6.68	103.5	8.19	0.81	0.92	0.88	3	6	0

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

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.03	6.00	55.6	590
Pre-sampling	0.09	5.87	56.2	589
Post-sampling	0.03	6.01	56.2	589

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Mitch Brown

Printed Name:

Mitch Brown

Sites with streams/outflows: NONE

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD181026-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB181026-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	
WUL181026-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:34	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL181026-N-1	Palauea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO181026-N-1	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:11	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		

Printed Name: _____

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