

Team	Kamaole	Samplers (Last Name, 1st Initial) <i>Brown M. Howard D. Graves S.</i>	Meters and Probes ID		
Session	27		HQ40d: 1	2100Q: 1	
Date	2/5/19		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 NKN190205	N	8:00	23.4	35.7	6.33	91.1	8.13	1.35	2.34	1.65	0	0	0
Waipuilani Park KWP190205	N	8:15	21.4	33.7	6.84	94.1	8.11	19.2	20.5	19.7	0	0	0
Kihei South KKS190205	N	8:33	23.1	34.7	6.24	89.0	8.15	6.10	6.85	7.69	0	0	0
Kalama Park KKP190205	N	8:52	22.5	35.3	6.85	96.9	8.18	5.57	7.67 5.82	5.73	0	2	0
Cove Park KCP190205	N	9:07	23.1	35.1	6.71	96.2	8.14	4.48	4.54	4.81	0	0	0

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

4th reading @ KKP

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.28	58.4	601
Pre-sampling	0.06	6.24	57.9	600
Post-sampling	0.04	6.44	58.5	600

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

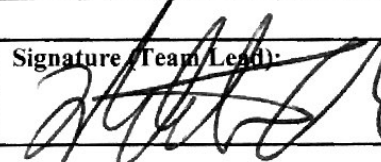
Printed Name:

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

Team	Kamaole	Samplers (Last Name, 1st Initial) <i>Brown M</i> <i>Howard D</i> <i>graves S.</i>
Session	27	
Date	2/5/19	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN190205-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	
KWP190205-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS190205-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:33	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP190205-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP190205-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:07	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: Mitch Brown
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Team	Makena	Samplers (Last Name, 1st Initial) <i>Sousa B. Brown M.</i>	Meters and Probes ID		
Session	27		HQ40d: 1	2100Q: 1	
Date	2/6/19		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 MML190206	<i>N</i>	<i>8:00</i>	<i>23.5</i>	<i>36.7</i>	<i>6.82</i>	<i>98.9</i>	<i>8.15</i>	<i>1.64</i>	<i>2.13</i>	<i>2.55</i>	<i>1</i>	<i>0</i>	<i>0</i>
S Maluaka Beach MMB190206	<i>NA</i>	<i>8:22</i>	<i>23.8</i>	<i>36.8</i>	<i>6.89</i>	<i>100.9</i>	<i>8.14</i>	<i>0.93</i>	<i>0.96</i>	<i>1.11</i>	<i>0</i>	<i>4</i>	<i>0</i>
Oneuli MON190206	<i>NA</i>	<i>8:50</i>	<i>23.8</i>	<i>36.8</i>	<i>6.89</i>	<i>100.7</i>	<i>8.14</i>	<i>6.28</i>	<i>5.74</i>	<i>6.02</i>	<i>0</i>	<i>0</i>	<i>0</i>
Ahihi Kinau North MAN190206	<i>NA</i>	<i>9:13</i>	<i>24.0</i>	<i>36.8</i>	<i>6.88</i>	<i>100.9</i>	<i>8.16</i>	<i>0.68</i>	<i>0.80</i>	<i>0.82</i>	<i>2 MB</i>	<i>7</i>	<i>0</i>
Ahihi Kinau South MAS190206	<i>NA</i>	<i>9:35</i>	<i>24.0</i>	<i>36.5</i>	<i>6.74</i>	<i>98.8</i>	<i>8.09</i>	<i>1.26</i>	<i>1.15</i>	<i>1.15</i>	<i>4</i>	<i>6</i>	<i>0</i>

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	<i>0.04</i>	<i>6.28</i>	<i>58.4</i>	<i>601</i>
Pre-sampling	<i>0.08</i>	<i>6.55</i>	<i>58.1</i>	<i>601</i>
Post-sampling	<i>0.05</i>	<i>6.53</i>	<i>58.8</i>	<i>601</i>

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	<i>5</i>	<i>NMS</i>	<i>M. Brown</i>
Bacteria	-	-	-

Signature (Team Lead): *[Signature]* Printed Name: *Mitch Brown*

Sites with streams/outflows: **Makena Landing**

Team	Makena	Samplers (Last Name, 1st Initial) <i>Brown M</i> <i>Sousa B.</i>
Session	27	
Date	2/6/19	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML190206-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	
MMB190206-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	
MON190206-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN190206-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS190206-N-1	Ahihi-Kinau South	<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): <i>[Signature]</i>	Printed Name: <i>Mitch Brown</i>
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Team	North Kihei	Samplers (Last Name, 1st Initial) <i>Thompson, K</i> <i>Riley, R</i> <i>Brown M.</i>	Meters and Probes ID		
Session	27		HQ40d: 1	2100Q: 1	
Date	2/7/19		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 NHP190207	N	8:16	23.4	34.5	6.91	99.0	8.08	7.46	9.12	7.57	0	3	1
Kealia Pond NKP190207	N	8:50	23.6	30.1	7.16	100.3	8.16	16.9	19.6	20.0	0	2	0
Sugar Beach NSB190207	N	9:09	23.9	35.6	6.89	100.2	8.15	3.31	3.86	4.26	0	2	0
Kihei Canoe Club NKC190207	N	9:29	24.3	35.0	6.86	100.1	8.12	13.6 4.61	14.2	9.88	0	3	0
Mai Poina Oe Iau NMP190207	N	9:50	24.3	34.6	6.86	99.9	8.13	4.09	5.71	6.04	0	2	0

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

A+ NKC - 4th reading NTU

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.28	58.4	601
Pre-sampling	0.04	6.63	58.7	602
Post-sampling	0.04	6.48	58.8	601

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	WMS	M. H.
Bacteria	-	-	-

Signature (Team Lead):

[Signature]

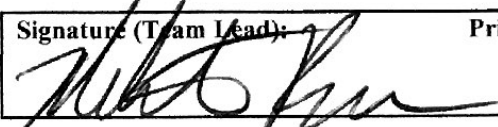
Printed Name:

Mitch Brown

Team	1 Streams/outflows: North Kona	Samplers (Last Name, 1st Initial) Thompson K Riley R Brown M
Session	27	
Date	2/7/19	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP190207-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:16	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP190207-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	
NSB190207-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:29	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC190207-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:29	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP190207-N-1	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50	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: Mitch Brown
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Team	Wailea	Samplers (Last Name, 1st Initial) <i>Wolfe A. Lamb C. Jarvie T.</i>	Meters and Probes ID		
Session	27		HQ40d: 1	2100Q: 1	
Date	2/8/19		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 WKD190208	N	8:00	23.3	36.9 36.9	6.87	99.4	8.15	0.80	0.66	0.68	1	5	0
Keawakapu Beach WKB190208	N	8:25	23.5	36.9	6.92	100.6	8.16	0.95	0.74	0.77	0	12	0
Ulua Beach WUL190208	N	8:46	27.0	36.8	6.92	101.3	8.15	0.64	0.62	0.65	4	1	0
Palauea WPL190208	N	9:12	23.8	36.9	6.96	101.5	8.17	0.89	0.89	0.92	0	5	0
Poolenalena WPO190208	N	9:31	23.9	36.9	6.97	101.8	8.18	0.64	0.71	0.55	0	2	2

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

pre sampling blank read 0.11 - they
did not take a 2nd reading or
wipe vial w/ black cloth. I
reminded them to try to get below
0.10

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.28	58.4	601
Pre-sampling	0.11	6.44	58.5	601
Post-sampling	0.04	6.52	58.4	601

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NALS	M. Brown
Bacteria	-	-	-

Signature (Team Lead):

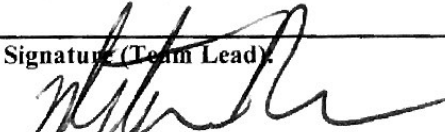
Printed Name:

[Signature] Mitch Brown

Team	Wailea	Samplers (Last Name, 1st Initial) <i>Wolf A Lamb C Darrin J</i>
Session	27	
Date	12/8/19	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD1902018-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB1902018-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL190208-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:46	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL190208-N-1	Palauea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO190208-N-1	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:31	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: <i>Michael Brown</i>
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FIELD EQUIPMENT VERIFICATION (PRE/POST A WEEKLY SAMPLING):



Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
27	M. Brown	2/4/19	9:05 am	M. Brown	2/8/19	10:30 am

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	
	1	1	n/a		24.2 °C	24.3 °C	24.8 °C	— °C			
	1	1	n/a		24.4		24.9				
	1	2	n/a			24.4		—			
Salinity			3 months	Std Val	Tap water	Salin Std date	Tap water	Salin Std date	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	1	2.4.19		0.13	34.9	0.10	35.0			
	1	2	2.4.19		0.13	34.9	—	—			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	10.1.18		99.9		100.7				
	1	2	10.1.18		100.8		—				
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	1	2.4.19		7.01	10.01	7.01	10.03			
	1	2	2.4.19		6.98	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	10.1.18		0.04	6.58	0.04	6.52			
	2	n/a	10.1.18		0.04	6.06	—	—			

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