

Team	Kamaole	Samplers (Last Name, 1st Initial)	Saunders, Taylor Kimmel, Jody	Meters and Probes ID		
Session	33			HQ40d: 1		2100Q: 1
Date	6/11/19			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 NKN190611	N	7:55	26.5	32.8	5.76	85.8	8.09	2.35	3.25	2.61	0	3	0
Waipuilani Park KWP190611	NA	8:22	25.6	30.3	5.26	76.3	8.00	4.4	4.84	5.40	0	3	0
Kihei South KKS190611	NA	8:40	26.7	31.9	6.28	93.6	8.10	3.74	4.37	3.56	4	2	0
Kalama Park KKP190611	N	9:00	27.4	33.8	6.56	100.0	8.13	9.96	11.70	11.30	3	1	0
Cove Park KCP190611	N	9:19	27.7	31.1	6.70	101.1	8.12	3.92	5.28	3.05	20*	0	0

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

Use the back of the form if needed.

Blank 1st read .27 cleaned w/ cloth 2nd .19
cleaned again .06

NIST @ KKP 27.3°C

KCP surfers NIST @ KCP 27.6

noticed scratches on turbidity sample
bottle side.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.42	58.6	593
Pre-sampling	0.06	6.50	59.2	593
Post-sampling	0.04	6.56	59.2	593

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Mitch Brown


Printed Name:

Mitch Brown

Team	Kamaole	Samplers (Last Name, 1st Initial)	Saunders T. Kimmel J.
Session	33		
Date	6/11/19		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN190611	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP190611	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:22	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS190611	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP190611	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP190611	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:19	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:
	Michael Brown

Team	Makena	Samplers (Last Name, 1st Initial)	A. Fries, J. Dunning, B. Sousa, J. Fries	Meters and Probes ID		
Session	33			HQ40d: 1		2100Q: 1
Date	6/12/19			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 MML190612		8:02	26.6	34.0	6.38	96.0	8.14	1.05	1.08	1.11	1	10	0
S Maluaka Beach MMB190612		8:33	27.3	33.9	6.29	95.8	8.11	0.55	0.54	0.69	10	4	0
Oneuli MON190612		9:00	27.2	34.5	6.05	92.3	8.06	0.73	0.85	0.79	0	10	0
Ahihi Kinau North MAN190612		9:26	27.1	34.6	7.45	113.3	8.13	1.47	1.03	1.15	4	0	0
Ahihi Kinau South MAS190612		9:51	27.3	35.0	6.27	96.1	8.11	0.53	0.53	0.58	14	15	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	0.04	6.59	59.1	593
Pre-sampling	0.05	6.59	59.2	593
Post-sampling	0.05	6.57	59.5	591

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Mike Fries Mike Brown

Justin Mone - observer

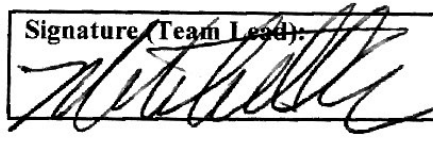
Sites with streams/outflows: Makena Landing

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Makena	Samplers (Last Name, 1st Initial)	S. Fries J. Dunning B. Sousa
Session	33		
Date	6/12/19		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML190612	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB190612	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:33	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON190612	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN190612	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS190612	Ahihi-Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:57	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

Team	North Kihai	Samplers (Last Name, 1st Initial) <i>T. Stark</i> <i>R. Behr</i> <i>K. Thyakolm</i> <i>R. Riley</i>	Meters and Probes ID		
Session	33		HQ40d: 1	2100Q: 1	
Date	6/13/19		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 NHP190613	N	8:15	26.3 101.1	33.9 34.0	6.71 6.75	100.2	8.09	4.18	4.44	4.04	0	3	0
Kealia Pond NKP190613	N	8:45	26.6	35.1	6.56	99.3	8.17	1.08	1.12	1.01	0	0	0
Sugar Beach NSB190613	N	9:00	26.8	34.9	6.16	100.7	8.13	2.12	2.37	2.36	0	8	0
Kihai Canoe Club NKC190613	N	9:25	27.0	34.2	6.53	99.5	8.12	2.73	2.85	3.18	3	5	0
Mai Poina Oe Iau NMP190613	N	9:40	27.5	32.1	6.40	97.0	8.02	4.83	4.80	4.98	3	3	0

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

NHP - low tide
Haycraft - we didn't hold the probes up so we did it again.
Kealia - we did salinity 2x, both 35.
Sugar Beach - dogs present
Kihai Canoe Club - NSB kids by canoe club
↳ turbidity checked "3.18" 2x 4 same
NMP - 1 dog & we could smell the sprayed sunblock

TURBIDITY VERIFICATION				
	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.59	59.1	593
Pre-sampling	.07	6.59	59.0	593
Post-sampling	0.05	6.57	59.3	592

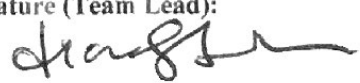
CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	T. Stark
Bacteria	-	-	-

Signature (Team Lead): <i>T. Stark</i>	Printed Name: Tiara Stark
---	------------------------------

Team	North Kihei	Samplers (Last Name, 1st Initial)	Stark, T. Bahr, F. Riley, R.	Thunholm, K.
Session	33			
Date	6/13/19			

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP190613	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP190613	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB190613	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:06	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC190613	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP190613	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	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:
	Tiara Stark

Team	Wailea	Samplers (Last Name, 1st Initial)	Jarvie, J. Wdt, A. Stark, T.	Meters and Probes ID		
Session	33			HQ40d: 1	2100Q: 1	
Date	6/14/19			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 WKD190614	N	7:55	26.5	34.5	6.62	99.8	8.11	1.61	1.64	1.66	1	8	0
Keawakapu Beach WKB190614	N	8:20	27.1	34.9	6.58	100.3	8.14	1.23	1.37	1.46	0	21	0
Ulua Beach WUL190614	N	8:42	26.9	34.4	6.61	100.4	8.12	1.99	2.99	2.33	22	25	0
Palauea WPL190614	N	9:06	27.6	34.5	6.59	101.2	8.14	3.90	3.75	3.46	2	30	0
Poolanulena WPO190614	N	9:25	27.5	34.8	6.58	101.2	8.18	1.08	1.29	1.16	1	8	0

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

high surf 5'

TURBIDITY VERIFICATION				
	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.59	59.1	593
Pre-sampling	0.05	6.56	59.2	593
Post-sampling	0.06	6.54	59.2	593

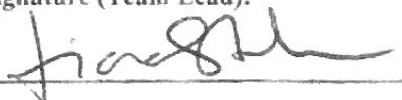
CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):	Printed Name:
	Tiara Stark

Team	Wailea	Samplers (Last Name, 1st Initial) <i>Jarvie, J. Wolf, A.</i> <i>Stark, T.</i>
Session	33	
Date	6/14/19	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD190614	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB190614	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL190614	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL190614	Palauca	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:06	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO190614	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	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: Tiara Stark
---	------------------------------

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
33	M Brown T. Stark	6/10/19	9:45	M. Brown T. Stark	6/14/19	10:20

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		28.4 °C	27.6 °C	29.9 °C	— °C			
	1	2	n/a		28.4 °C		30.2				
	1	2	n/a			27.4		—			
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	
	1	1	5/20/19		0.13	6/3/19 date 34.3 ppt	0.13	6/3/19 date 34.3 ppt	after cal	Recalibrated Probe #1 b/c outside acceptable range	Air 25.8 °C
	1	2	5/20/19		0.12	33.1	0.12	33.1	33.1	Recalibrated Probe #2	Stand 25.1 °C
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	10/1/18		99.9%		99.4%				
	1	2	10/1/18		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	
	1	1	6/10/19		7.00	10.01	7.03	10.03			
	1	2	6/10/19		7.00	10.01	—	—			
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	5/20/19		0.04	6.42	0.06	6.54			
	2	n/a	5/20/19		0.03	6.28	—	—			

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