

Team	Kamaole	Samplers (Last Name, 1st Initial)	J Graves D. Howard						Meters and Probes ID		
Session	32					HQ40d: 2 HD40d 1			2100Q: 2		
Date	5/21/19					pH: 7	DO: 7	Salinity: 31			

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 NKN190521	N	8:05	26.7	32.6	5.71	85.4	8.05	2.43	3.46	3.87	-
Waipuilani Park KWP190521	N	8:40	26.5	33.1	6.05	91.1	8.01	11.0	11.5	11.4	-
Kihei South KKS190521	N	8:55	27.5	31.3	6.20	93.4	8.07	4.9	5.88	5.99	4
Kalama Park KKP190521	N	9:15	27.5	34.2	7.01	107.2	8.17	5.58	6.03	6.22	4
Cove Park KCP190521	N	9:35	28.0	31.0	6.94	105.3	8.03	3.86	5.78	5.92	5

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

Use the back of the form if needed.

HQ40d2 meter = dead
switched to HD40d1

* NTU #4 5.21

Waipuilani nutrient sample retaken at
9:40 am - couldn't find ~~bottle~~ syringe

TURBIDITY VERIFICATION

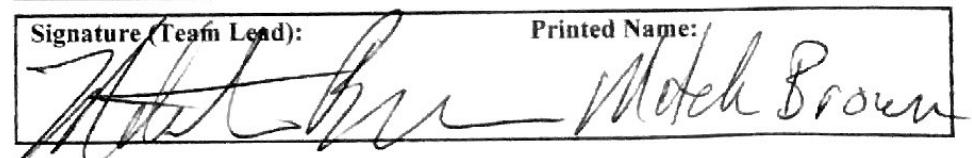
	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.30	56.6	576
Pre-sampling	.04	6.31	56.9	577
Post-sampling	0.04	6.28	57.2	576

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

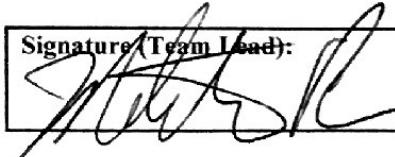


Sites with streams/outflows: Kalepolepo North, Kalama Park, Cove Park

Team	Kamaole	Samplers (Last Name, 1st Initial)	<i>S. graves</i>			
Session	32		<i>D. Howard</i>			
Date	5/21/19					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN190521	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP190521	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS190521	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP190521	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP190521	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):  Printed Name: *Mitch Brown*

Team	Makena	Samplers (Last Name, 1st Initial)	J Dunning, M Sharpe B. Sousa						Meters and Probes ID		
Session	32								HQ40d: xx 1		
Date	5/22/19		pH: xx 1			DO: xx 1		Salinity: xx 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 MML190522	N	7:50	26.6	25.1	6.96	100.0	8.12	5.43 5.75 5.72	Ø Ø Ø	Ø Ø Ø	
S Maluaka Beach MMB190522	N	8:25	27.2	33.7	6.59	100.1	8.10	2.36 2.97 2.56	3 12 Ø	Ø Ø Ø	
Oneuli MON190522	N	8:45	27.3	34.2	6.73	102.4	8.10	4.03 4.03 3.67	Ø Ø Ø	Ø Ø Ø	
Ahihi Kinau North MAN190522	N	9:00	26.7	34.7	7.08	107.0 8.07 2.00	8.07 2.00 2.06	2.44	Ø Ø Ø	Ø Ø Ø	
Ahihi Kinau South MAS190522	site closed	-	-	-							

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

Use the back of the form if needed.

Ahihi Kinau S. closed due to
shark sighting

TURBIDITY VERIFICATION

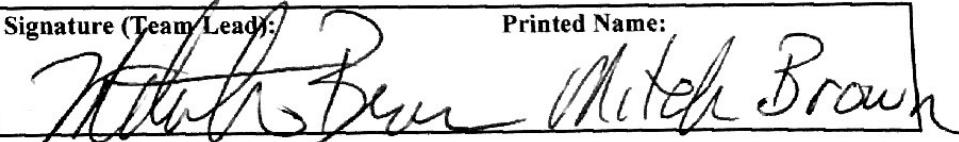
	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.30	56.6	576
Pre-sampling	0.26	6.22	56.7	573
Post-sampling	0.03	6.28	57.1	575

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	WMS	M Brown
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:



Sites with streams/outflows: Makena Landing

Hai O Ku Wai Ota - Sample Collection Datasheet

Team	Makena	Samplers (Last Name, 1st Initial)	<i>T. Dunning M. Sharpe B. Souza</i>			
Session	32					
Date	5/22/19					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML190522	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB190522	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON190522	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN190522	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9.00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS190522	Ahihi-Kinau South	<input type="checkbox"/>	<input type="checkbox"/>		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):

Matt Lm

Printed Name:

Mitch Brown

Hawaiian Ocean Sample Collection Data Sheet

Team	North Kihei	Samplers (Last Name, 1st Initial)	Rybale, D	Tiara S.			Meters and Probes ID		
Session	32		Rybale, M				HQ40d: ✓ 1	2100Q: 2	
Date	5/23/19		Riley, R	Thornholm, K			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 NHP190523	N	8:20	26.9	34.6	6.71	102	8.14	4.90	5.07	5.34	4
Kealia Pond NKP190523	N	8:50	27.2	35.0	6.58	100.7	8.15	1.81	1.83	1.57	1
Sugar Beach NSB190523	N	9:15	27.4	34.5	6.62	101.4	8.12	4.95	3.23	4.91	3
Kihei Canoe Club NKC190523	N	9:40	28.1	34.4	6.58	102.2	8.11	8.75	8.39	7.91	0
Mai Poina Oe Iau NMP190523	N	9:58	27.7	34.1	6.68	103	8.15	1.67	2.17	2.19	0
									8	0	

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

Use the back of the form if needed.

NKP - 2 dogs
 NHP + NKP - waves 1-2 foot
 NKC - for the past 2 weeks at so, KCC has
 had a big water leak. It's dry now
 NMP - 1 cat camping + 2 dogs

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.03	6.30	56.6	576
Pre-sampling	0.04	6.26	56.8	576
Post-sampling	0.06	6.24	57.0	575

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Tiara Stark

Ma O Ka Wai O'a - Sample Collection Datasheet

Team	1	Streams/outflows:	
Session	32	Samplers (Last Name, 1st Initial)	Rybak, D. Stark, T. Rybak, M. Riley, R. T., Kathy
Date	5/23/19		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP190523	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP190523	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB190523	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC190523	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	
NMP190523	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:58	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):

dianasfdm

Printed Name:

Tara Stark

Hawaii State Sample Collection Datasheet

Team	Wailea	Samplers (Last Name, 1st Initial)	<i>WOLF A. Janice J.</i>						Meters and Probes ID		
Session	32								HQ40d: 21		
Date	5/24/19		pH: 21			DO: 21		Salinity: 21			

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 WKD190524	N	8:01	26.9	34.3	6.70	101.4	8.10	1.81	1.63	1.88	2	5	0
Keawakapu Beach WKB190524	N	8:20	27.1	34.8	6.66	101.5	8.14	0.73	0.71	0.78	6	9	0
Ulua Beach WUL190524	N	8:40	27.1	34.4	6.66	101.3	8.11	1.28	1.39	1.41	25	27	0
Palaea WPL190524	N	9:00	27.3	34.5	6.67	101.8	8.17	2.37	2.38	2.27	3	4	0
Poolenalena WPO190524	N	9:15	27.6	34.7	6.61	101.8	8.17	0.73	0.69	0.59	0	15	0

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

Use the back of the form if needed.

Took 4th reading @ WUL

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	6.30	56.4	576
Pre-sampling	0.04	6.27	56.7	576
Post-sampling	0.04	6.25	57.1	575

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

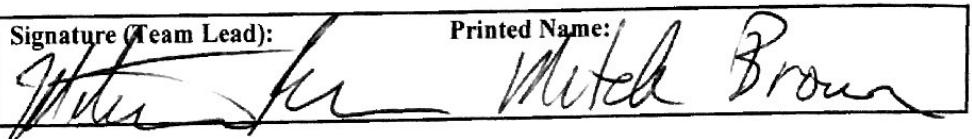
Markie L. Moleki Brown

Team	Wailea	Samplers (Last Name, 1st Initial)	<i>M Brown J. Jarvie A. Wolf</i>			
Session	32					
Date	5/24/19					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD190524	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:01	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB190524	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL190524	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL190524	Palauea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO190524	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	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

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

Hui O Ka Wai Ola

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
SM 32	W Brown	5/20/19	9:03 Am	T. Stark, M. Brown	5/24/19	10:55 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 24.1 °C	NIST 24.1 °C	NIST — °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water
	Z 1	n/a			24.2	28.4			
	Z 2	n/a			24.2	—			
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 21/7 date 33.4 ppt	Tap water 0.13	Salin Std 21/7 date 35.0 ppt	± 1 ppt
	Z 1	5/20/18			0.13	34.8	0.13	34.6	→ Hach standard
	Z 2	5/20/19			0.13	33.1	—	—	Used HACH standard → 35.0 lab 3/19 - 5000-1 lab scale
Dissolved Oxygen			1 year	Std Val	100%		100%	± 5 %	
	Z 1	10/1/18			100.0	97.4			
	Z 2	10/1/18			150.8	—			
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value
	Z 1	5/20/19			7.00	10.03	7.04	10.04	
	Z 2	5/20/19			7.00	10.03	—	—	
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 0.28 NTU	BLANK <0.1	LOW 1-10 NTU	± 0.18 NTU Low 1-10
	1	n/a	5/20/19		0.04	10+	—	—	
	Z	n/a	5/20/19		0.04	9.99	0.04	6.26	

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

6.30