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

Session No:	Ve	erifiers:	Pr	e date:	Pre time:	Post: Date:	Post time:
23	GEONGE	BUNDETTE	6/	14/17	10:15	6/23/17	12:00 noon

QA/QC Check	Inst #	Probe#	Last Cal Date			tE: ion Value		ST: ion Value	Acceptable Range (Check range)	Comments/ Notes	QA?
Temperature			n/a	(Std)	B 2	16.5°C	26	.5	± 1°C of NIST	Within 1°C	
÷	2	5-2	n/a		2	6.6	26	3.7			
	2	5-3	n/a	170 (1)	2	6.5	26	6.7			
Salinity				Std	0.04	35.0	0.04	33.3	± 3%, blank	33.95 – 36.05	
	2	2	6/19/17		0.04	34.9	6,04	33.4			
	2	3	6/19/17		0.04	34.8	0.04	33.2			
Dissolved Oxygen				Std	10	0%	100	0/0	Post-check ± 5 % of pre-check (0- 100%)	80 – 120 %	
	2	1	3/28/17		10	1.2	10	1.8			
	2	2	7/25/16		91	7. 8	98	./			
рН				Std	7.00	10.01	7,00	10.01	± 3 % of calibration solution (6-8)	6.79 – 7.21	
	2	3	6/19/17		7.00	10.01	7.01	9.98			
	2	4	6/19/17	30 30 1 Aug	7.00	10.01	7.01	9.97			

Notes: Are pre-predanastos within pre-week?

* Delay times are ok?

* Other equipment issues?

Team/ Session:	San	nplers (Initials):	Instrument #	Probe #s	pН	DO	Salinity	Date:	1 st Sample Time	End Sample Time:
R2R	Lead:	V	40d:	40d:	12			6/20/17	7:41	9:22
23	Notetake	Marie/Ty	2100q: 2		4	2_	2_			

. N	Tr.	Temp	Sal	DO	DO Sat			ALUE OF	DED.			People			T 000 0
Location Name	Time	(C)	(ppt)	(mg/L)	(%)	pН	1 1111	bidity (N	10)	Waves	Wind	Swim	Beach	Camp	TSS ?
Napili Bay RNS RNS170620	7:41	26,214	33,6	6.90	102.9	8.10	1.85	2.11	1.87	Spring tides	Calm slight smist	divers spear fishers	20	~	
Pohaku RPO RPO170620	8:07	25.7° 25.5	30,5	6.96	101.1	8-16	7.24	7.36	6.70	WAVES	calno	quiet	8 just	 ord	
Kaanapali Sh RKS RKS170620	8:28	26.31	34.4	6.70	100,4	8012	4.55	5,52	5.43	CKLM	colmer	beach b	5-1	o .—	
Airport Beach RAB RAB170620	8:46	26.71	34.2	6.64	100.2	8.17	2.16	2,15	1.97	CHM sets of s	Very de Sight	5	people people	0-40	
Canoe Beach RCB RCB170620	9:04	27.01	34.0	6.75	102,1	8.16	6022	5.91	6.09	big 3 cs	breezy	4 10	Kids w	y -	2 🗆
Wahikuli RWA RWA170620	9:22	26-91	33.9	6.76	102.2	8-17	5.11	4.73	5,09	Kingtide Hisural	breezy Sunny	N	peacers		

Most recent low tide time/height (Lahaina	Low 6:27 a.m; High 2:01
station):	p.m.
Moon Day (from new)	27
Cloud Cover (1-8):	F
Rain Conditions (last 24 hours)	LIGHT DRILL
Wind conditions (Trades? Kona?):	no wind
Streams flowing? (Y/N)	

QA Notes and Comments (Trends? Equip problems? Errors? Concerns?)

Waves: 0 ft = no waves; 1 ft = small waves; 2 ft = knee high; 3 ft = waist high
Wind: 0 = calm, 1 = light air, 2 = light breeze, 3 = gentle breeze, 4 = moderate breeze
People: Swimmers/Kayakers/Surfers, On beach, Campers: 0, 1-5, 5-10, 10-20, 20-40

Turbidity Verification

	Blank	Low	Med	High
Standard	, 29	6.60	60.0	567
Pre	,09	6.55	59.9	567
Post	,05	6.62	60.0	566

	Total # of samples	Relinquished To::	Contact
Sediment	0	LHS	Deve
Nutrient	6	LHS	DANA
Bacteria			

Signature (Lead):

Team:	Samplers:	Date:	Start time:	Finish time:
R2R - 23	TV, TERRY	6/20/17	7:41	9:22

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
RNS170620-N-1	Napili Bay	D.		7:41	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RPO170620-N-1	Pokahu	Ø		8:67	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RKS170620-N-1	Kaanapali Sh	Q'		8.38	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RAB170620-N-1	Airport Beach	'A		8:47	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RCB170620-N-1	Canoe Beach	Ø.		9:04	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RWA170620-N-1	Wahikuli	□ DI/		9:22	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
Sediment							
RNS170620-S-1	Napili Bay				500		
RPO170620-S-1	Pokahu				500		
RKS170620-S-1	Kaanapali Sh				500		
RAB170620-S-1	Airport Beach				500		
RCB170620-S-1	Canoe Beach				500		
RWA170620-S-1	Wahikuli				500		



Team/ Session:	Samplers (Initials):	Instrument #	Probe #s	pН	DO	Salinity	Date:	1 st Sample Time	End Sample Time:
Polanui	Lead: Rich Bagly	40d: - 1	40d:	4	1	2	6/21/17	8 isam	10:25 am
23	Notetaker: Outhy Maxwell	2100q: - Z							

		Temp	Sal	DO	DO Sat		-	X : 1:2 (N)					People		Toola
Location Name	Time	(C)	(ppt)	(mg/L)	(%)	pН	101	bidity (N'	10)	Waves	Wind	Swim	Beach	Camp	TSS?
505 Front St PFF PFF170621	8 am	26.9	33.4	6,47	97.6	8.08	4.48	5.17	5.36		Omph	Open			
Lindsey Hale PLH PLH170621	8 am	26.7	33.9	6.32	95.2	8.08	2.39	2.52		off	Onth	o pergo	chisale	need	
Lahaina Town PLT PLT170621	903m	27.3	34.5	6.85	104.6	8.10	2,28	2.11	2.34	OH	1-2 mph	Dens Frank	ero unio	rey	
Puamana PPU PPU170621	930 am	27.3	34.5	6.69	695M 102.Z	8,17	3.58	4.04	4.38	2-3/4	1-Zmph	pools	goin o	ed-	
Launiupoko OLP OLP170621	950 am	27.4	34.5	6.86	104.9	8.20	1.80	1.95	1.64	1-5/4	1-2mph	Surjer	-10(5	-10)	
Olowalu Pier OSF OSF170621	10°am	27.6	34.6	694	106.5	8.16	3.81	3.10	3.85	Owens	1-2mph	of per	us ple		

Most recent low tide time/height (Lahaina station):	Low 7:07 a.m; High 2:44 p.m.
Moon Day (from new)	28
Cloud Cover (1-8):	noie
Rain Conditions (last 24 hours)	no rain
Wind conditions (Trades? Kona?):	home / Trades 1-2 mph
Streams flowing? (Y/N)	(YISMON)
	1 1 1

QA Notes and Comments (Trends? Equip problems? Errors? Concerns?)

Waves: 0 ft = no waves; 1 ft = small waves; 2 ft = knee high; 3 ft = waist high Wind: 0 = calm, 1 = light air, 2 = light breeze, 3 = gentle breeze, 4 = moderate breeze People: Swimmers/Kayakers/Surfers, On beach, Campers: 0, 1-5, 5-10, 10-20, 20-40

Turbidity Verification

	Blank	Low	Med	High		
Standard Q	e/ 0.06	6.63	60.0	566		
Pre	0.06	6.63	60.0	566		
Post	0.06	6.69	60.0	566		

	Total # of samples	Relinquished To::	Contact		
Sediment	0	LHS	Dana Real		
Nutrient	6	LHS	Dana Reed		
Bacteria	Q				

Signature (Lead):

Team:	Samplers:	Date:	Start time:	Finish time:		
Polanui - 23	KICH BAYLY	6/21/17	8:15	10:25		

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients					100		
PFF170621-N-1	505 Front St	Q		8:15	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
PLH170621-N-1	Lindsey Hale	Ø		8.43	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
PLT170621-N-1	Lahaina Town	4		9:03	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
PPU170621-N-1	Puamana			9:30	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OLP170621-N-1	Launiupoko	1		950	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OSF170621-N-1	Olowalu SF			1012	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
Sediment							
PFF170621-S-1	505 Front St				500		
PLH170621-S-1	Lindsey Hale				500		
PLT170621-S-1	Lahaina Town				500		
PPU170621-S-1	Puamana				500		
OLP170621-S-1	Launiupoko				500		
OSF170621-S-1	Olowalu SF				500		

Pron Bauger

Team/ Session:	Samplers (Initials):	Instrument #	Probe #s	pН	DO	Salinity	Date:	1 st Sample Time	End Sample Time:
Olowalu	Lead: 663	40d: 2	40d:	3	2	3	6/22/17	0720	9:20
23	Notetaker: Notetaker:	2100q: 1							

Location Name	Time	Temp	Sal	DO	DO Sat	pН	Too	·bidity (N	ru)	Waves	Wind	People			TSS?
Education Tunic	Time	(C)	(ppt)	(mg/L)	(%)	hu	101	bidity (iv	10)	waves	Willa	Swim	Beach	Camp	133 :
Martin Hale OPM OPM170622	0720	26.1	34.6	5,82	87.3	8.40	1.48	1.38	1.42	0	1	Ó	0	0	
Camp Olowalu OCO OCO170622	0745	26.0	34.3	6.38	95.5	8.20	14.6	15.4	15.0	Z	2	0	0	D	×
Mile Marker 14 OMM OMM170622	0810	25.7	33.9	6.20	92.1	8.01	5.32	4.64	5,06	ſ	3	0	0	0	
Ukumehame OUB OUB170622	0830	26.4	34.6	6.5A	98.7	8.12	4.13	4,20	4.06	3	3	Z	3	0	
Papalaua Beach OPB OPB170622	0850	26.1	34.6	6.88	103.2	8.16	2.93	3,29	2.57	t	3	0	0	0	
Papalaua Pali OPP OPP170622	0910	26.1	34.7	6.15	101.4	8.13	3.71	3,93	3,86	2	3	8	6	0	

Most recent low tide time/height (Lahaina station):	Low 7:48 a.m.; High 3:27 p.m.
Moon Day (from new)	29
Cloud Cover (1-8):	D
Rain Conditions (last 24 hours)	Nore
Wind conditions (Trades? Kona?):	THARES
Streams flowing? (Y/N)	N

QA Notes and Comments (Trends? Equip problems? Errors? Concerns?)

Waves: 0 ft = no waves; 1 ft = small waves; 2 ft = knee high; 3 ft = waist high Wind: 0 = calm, 1 = light air, 2 = light breeze, 3 = gentle breeze, 4 = moderate breeze People: Swimmers/Kayakers/Surfers, On beach, Campers: 0, 1-5, 5-10, 10-20, 20-40

Turbidity Verification

	Blank	Low	Med	High
Standard		5.40	56.0	608
Pre	0.05	5.43	56.1	608
Post	0.06	5.42	36.1	607

	Total # of samples	Relinquished To::	Contact
Sediment		LHS	Dana Reed
Nutrient	6	LHS	Dana Rees
Bacteria			

Signature (Lead):

By & AK A

Team:	Sam	plers:	Date:	Start time:	Finish time:
Olowalu - 23	660 /1	sw .	06/22/17	0710	0920

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients					18.05 (S) 18.05 (S)		
OPM170622-N-1	Martin Hale	A		0720	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OCO170622-N-1	Camp Olowalu	×		0745	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OMM170622-N-1	Mile Marker 14	Ø		0810	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OUB170622-N-1	Ukumehame	ĖΔ		0830	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OPB170622-N-1	Papalaua Beach	M		0850	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OPP170622-N-1	Papalaua Pali	[2K]		0910	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
Sediment							
OPM170622-S-1	Martin Hale				500		
OCO170622-S-1	Camp Olowalu	×		0800	500		
OMM170622-S-1	Mile Marker 14				500		
OUB170622-S-1	Ukumehame				500		
OPB170622-S-1	Papalaua Beach				500		
OPP170622-S-1	Papalaua Pali				500		

In I Mk at

Team/ Session:	Samplers (Initials):	Instrument #	Probe #s	рН	DO	Salinity	Date:	1 st Sample Time	End Sample Time:
NR2R	Lead: Ananda, &	40d: 2	40d:	3	2	3	6/23/17	7:25	10:40
23	Notetaker: Dana	2100q:							

Location Name	Time	Temp	Sal	DO	DO Sat	pН	Truskidide (AUTH)		Wasses	Wind	People		Tree e		
	Time	(C)	(ppt)	(mg/L)	(%)	hir	1 111	Turbidity (NTU)	10)	Waves	Willu	Swim	Beach	Camp	TSS?
Honolua Bay RHL RHL170623	7:25	25.5	33.3	5.80	85.6	8.08	1.10	0.81	0.89	φ	ф	ф	4	φ	
Mokule'ia Bay RMO RMO170623	8:05	26.0	32.3	6.56	97.2	8.18	2.04	1.94	2.57	2	ф	5	5	ø	
Fleming North RFN RFN170623	8:40	26.4	33,8	6.44	96.8	8.13	1.47	1.36	1.36	J	1	4	9	φ	
Oneloa Bay RON RON170623	9:14	26.7	34.2	6.72	102.0	8.20	0,60	0.32	0.38	ф	1	2	10-20	\$	
Kapalua Bay RFS RFS170623	9:50	26.3	31.7	6.50	96.4	8.08	1.28	1.20	1.17	\$	1	750	>50	ϕ	
Ka'opala Bay RKO RKO170623	10:20	26.7	33,1	6.59	99.2	8,10	8,21	8.74	7,83	1		ф	i	ϕ	

Most recent low tide time/height (Lahaina	High 4:10 p.m.;
station):	Low 8:29 a.m.
Moon Day (from new)	0
Cloud Cover (1-8):	3
Rain Conditions (last 24 hours)	Shower word morn
Wind conditions (Trades? Kona?):	Showery carly morn Trades
Streams flowing? (Y/N)	N (RHL)

QA Notes and Comments (Trends? Equip problems? Errors? Concerns?)

Shore break Mokule'is County working on lift station at Kapalua Bay Testing noise level of emergency generator Waves: 0 ft = no waves; 1 ft = small waves; 2 ft = knee high; 3 ft = waist high Wind: 0 = calm, 1 = light air, 2 = light breeze, 3 = gentle breeze, 4 = moderate breeze People: Swimmers/Kayakers/Surfers, On beach, Campers: 0, 1-5, 5-10, 10-20, 20-40

Turbidity Verification

	Blank	Low	Med	High
Standard		5.40	56.0	608
Pre	0.06	5.35	56.6	608
Post	0,04	5.34	56.0	607

	Total # of samples	Relinquished To::	Contact
Sediment	ф	LHS	Dano Reed
Nutrient	6	LHS	Dana Reid
Bacteria			

Signature (Lead): Quanda Stone

Team:	Samplers:	Date:	Start time: Finish time:
NR2R - 23		6/23/17	7:25 10:40

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients					- 5 70 77 5		
RHL170623-N-1	Honolua Bay	×		7:25	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RMO170623-N-1	Mokule'ia Bay	Ą		8:05	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RFN170623-N-1 Fleming North				8:40	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RON170623-N-1 Oneloa Bay		Ø		9:14	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RFS170623-N-1	Kapalua Bay	τ <u>β</u> ,		9:50	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RKO170623-N-1	Ka'opala Bay	×		10:20	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
Sediment							
RHL170623-S-1	Honolua Bay				500		
RMO170623-S-1	Mokule'ia Bay				500		
RFN170623-S-1	Fleming North				500		
RON170623-S-1	Oneloa Bay				500		
RFS170623-S-1	Kapalua Bay				500		
RKO170623-S-1	Ka'opala Bay				500		

anandu Store