POST OTOMO, L. MAXWELL, C BUNDETTE, G

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

Session No:	Verifiers:	Pre date:	Pre time:	Post: Date:	Post time:
26	MAXWELL C DELASOTA,S	8/21/17	10:00	8/25/17	12:20



QA/QC Check	Inst#	Probe #	Last Cal Date			RE: tion Value	Verificat	ST: ion Value	Acceptable Range (Check range)	Comments/ Notes	Q
Temperature			n/a	Std	28.1°C	PROBEZ C	PASBE 27:	7°C	± 1°C of NIST	Within 1°C	
	ĺ	3	n/a		27.	9°C	27.	5°C			
		2	n/a		28	Z°C	0.00				
Salinity				Std	0.04	33.3	1APWATER 0.04	Bothe 8/4/17	± 3%, blank	33.95 – 36.05	
		3	6/19/17		0.04	33.6	0.04	33.9			
	l	2	6/19/17		0.04	33.4					
Dissolved Oxygen		new e		Std	10	0%	100	%	Post-check ± 5 % of pre-check (0- 100%)	80 – 120 %	
	l	1	3/28/17		101	1.4%					
	1	2	8/1/17		100	1.4%	102	.1%			
рН				Std	7.00	10.01	7.00	10.01	± 3 % of calibration solution (6-8)	6.79 – 7.21	
•	1	4	8/21/17		7.00	10.01	7.01	9.98			
	1	3	8/21/07		7.00	10.01					

QA:

<sup>\*</sup> Are pre- and post within one week? \* Delay times are ok?

<sup>\*</sup> Other equipment issues?

7121	Maxwell C.,	Freiberg, Tyl	Schrod	er. Te	my è	Marie.	Tarnaka	na Brenda	/ai Ola. 05/01/2017 -
Team/ Session:	Samplers: Last Name, 1st Initial	Instrument #	Probe #s	pН	DO	Salinity	Date:	1st Sample Time	End Sample Time:
R2R	Lead: Cathy Ty, lerry,	40d: 1	40d:	4	Z	3	8/22/17	7:55	9:46
26	Notetaker: Warie Phil	2100q: /		•				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

Location Name	Time	Temp	Sal	DO	DO Sat	0.00	Total	hidier Or	TIO .	Waves	Wind		People		TSS ?
Control Name		(C)	(ppt)	(mg/L)	(%)	pН	101	bidity (N				Swim	Beach	Camp	135 :
Napili Bay RNS RNS170822	7:55	26.4°Cm	33,6	661	99.0	8.04	1.36	1.57	1.64	Chappala	l	Ø I	Ø SUP	Ø	
Pohaku RPO RPO170822	8:21	26.08	33.6	6.30	93.1	8.11	1.04	1.10	1.06	0	0-1	ø	Ø	D	
Kaanapali Sh RKS RKS170822	8:43	36.5% \$6.0%	a 31.1	6.42	94.9	8.[1	2.64	3.06	3.08	1-2-	10-20 Km	3	6	0	
Airport Beach RAB RAB170822	9:03	27.10	734.5	6.57	100.0	8.17	.46	.57	,40	0	1-2	1-5	16.0	o d	
Canoe Beach RCB RCB170822	9:22	27.0 X	331	6.93	104.4	8,18	137	5.86	6.03	1	0	1-5	nol 20-L nours		of cn
Wahikuli RWA RWA170822	9:46	27.110	3400	6.63	100,6	8.17	1.45	cm 1,46	CM	1	0-1	0	O	0	

## COASTAL AND ENVIRONMENTAL CONDITION NOTES

Most recent low tide time/height (Lahaina station):	Low 9:34 a.m; High 3:46 a.m.
Moon Day (from new)	1
Cloud Cover (1-8):	<b>曾</b> 7
Rain Conditions (last 24 hours)	Raining
Wind conditions (Trades? Kona?):	1 - Light
Streams flowing? (Y/N)	1

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

Raining at Napili.

Violation of Pohaku usco Kuenex

Wind up, Sun rut RKS light sprin

Airport, Cloud Cover 80%

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

	Blank	Low	Med	High
Standard	,	5.49	57.0	625.
Pre	. 08	5.56	57.0	626
Post	.04	5.53	57.1	625

	Total # of samples	Relinquished To::	Contact
Sediment	0	LHS	Maxwell
Nutrient	6	LHS	MaxwellC
Bacteria	0		Maxwell

C. MAXWELL, I SCHNOEDEN, M SCHNOEDEN, B JANMAKAND WATER QUALITY SAMPLING:

Team: Samplers:
Last Name, 1st Initial Date: Start time: Finish time:

R2R-26 Freiberg, 7. 8/22/17 7:45 9:49

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
RNS170822-N-1	Napili Bay			7:55	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RPO170822-N-1	Pokahu			8:31	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RKS170822-N-1	Kaanapali Sh			8:43	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RAB170822-N-1	Airport Beach	4		9:03	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RCB170822-N-1	Canoe Beach	4		9:22	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RWA170822-N-1	Wahikuli			440	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	0						
RNS170822-S-1	Napili Bay				500		
RPO170822-S-1	Pokahu				500		
RKS170822-S-1	Kaanapali Sh				500		
RAB170822-S-1	Airport Beach				500		
RCB170822-S-1	Canoe Beach	700		9200	N500		
RWA170822-S-1	Wahikuli			-	500		



Team/ Session:	Samplers: Last Name, 1 <sup>st</sup> Initial	Instrument #	Probe #s	рН	DO	Salinity	Date:	1 <sup>st</sup> Sample Time	End Sample Time:
Polanui	Lead: Kaxwell, J.	40d: \	40d:	4	2	3	08/23/17	8:17	10140
26	Notetaker: Brown M	2100q:							,

Location Name	Time	Temp	Sal	DO	DO Sat				<b></b>				People		
Location Name	Time	(C)	(ppt)	(mg/L)	(%)	pН	1 11	rbidity (N	10)	Waves	Wind	Swim	Beach	Camp	TSS?
505 Front St PFF PFF170823	8:17	271	34,9	6.37	97.3	8,05	1.8	2.47	2.17	1/2/4	Ø	1-5	15	Ø	
Lindsey Hale PLH PLH170823	8:47	27.2	34.3	6.43	97.9	8,08	7.52	7.65	8.14	Ø	1	12	510	Ø	
Lahaina Town PLT PLT170823	9:10	27.6	34.2	6,37	97,7	8,07	3.09	3.99	4.14	Ø	Ø	1	Ø	Ø	
Puamana PPU PPU170823	9:38	274	34.5	6.64	101.6	8,17	4.43	5.73	4.04	2	2	1	Ø	ø	
Launiupoko OLP OLP170823	10:01	28.1	35.1	6-63	105.3	8.17	3.18	3,18	5.73	/	Z	10-2	0/6	Ø	
Olowalu Pier OSF OSF170823	10:25	27.8	35.0	7.06	109.2	8.09	1.72	1.90	1.24	8	2	8	Ø	Ø.	

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Most recent low tide time/height (Lahaina station):	High 8:20 a.m. falling; Low 1:14 p.m.
Moon Day (from new)	2/3
Cloud Cover (1-8):	1
Rain Conditions (last 24 hours)	NA
Wind conditions (Trades? Kona?):	TRADES
Streams flowing? (Y/N)	Y

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

PFF Freim lightly flowing

PLH No Fram flow

PAZZATED ISDE DATA INCONNECT CONNECT DATA: HIGH 4:28 am / HESCHT 1.65 EX
LOW 10:12 am / HESCHT OFF 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

	Blank	Low	Med	High
Standard		5,49	57.0	625
Pre	0.9/1.2	5.50	57.2	626
Post	0.04	5 45	57.1	624

	Total # of samples	Relinquished To::	Contact
Sediment	1	LHS	GEORGE BULLETE
Nutrient	6	LHS	GEORGE BURNETE
Bacteria	0		

Signature (Lead):

WATER QUALITY SAMPLING:

Team:	Samplers: Last Name, 1 <sup>st</sup> Initial	Date:	Start time:	Finish time:
Polanui - 26	Maxwell, J.	8/23/17	8:17	10:40

Brown M

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
PFF170823-N-1	505 Front St	团		8:17	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
PLH170823-N-1	Lindsey Hale	<b>d</b>		8:47	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
PLT170823-N-1	Lahaina Town	<b>E</b>		9:10	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
PPU170823-N-1	Puamana	E /		9:38	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OLP170823-N-1	Launiupoko			10:01	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OSF170823-N-1	Olowalu SF	₽		10:25	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							
PFF170823-S-1	505 Front St				500		
PLH170823-S-1	Lindsey Hale	U			500		
PLT170823-S-1	Lahaina Town				500		
PPU170823-S-1	Puamana				500		
OLP170823-S-1	Launiupoko				500		
OSF170823-S-1	Olowalu SF				500		

JAH

D NOCONEN

The second secon	Samplers: Last Name, 1 <sup>st</sup> Initial	Instrument #	Probe #s	pH 4	DO 2	Salinity	Date:	1 <sup>st</sup> Sample Time	End Sample Time:
	Lead: G. BURNETTE	40d: i				3	08/24/17	6711	00195
26	Notetaker: [. OTOPO	2100q:							

Location Name	Time	Temp	Sal	DO	DO Sat	pН	Tu	abidita (NI	PEN	Waves	Wind		People		TSS ?
Location Name	Time	(C) (pp		(mg/L)	(%)	(%) PH		Turbidity (NTU)			v ind	Swim	Beach	Camp	133.
Martin Hale OPM OPM170824	0711	25.3	35, 2	5,95	88.4	8.03	11.9	12.4	12.4	ĺ	1	0	0	0	- 0
Camp Olowalu OCO OCO170824	0750	25.8	35.3	6.49	97.2	8.01	4.86	2.82	2.91	1	1	1=5	0	0	D -
Mile Marker 14 OMM OMM170824	8811	25.9	35.2	6.05	90.7	8.04	4.34	4.08	3,98	O	1	1-5	D	0	
Ukumehame OUB OUB170824	0833	15.2	35.3	6.33	93.9	8.11	7.07	7.04	7.26	1	4	0	1-5	0	
Papalaua Beach OPB OPB170824	0855	25.8	35. Z	6.78	101.5	8.13	9.07	8.79	8.70	Ó	2	O	0 /	1-5	
Papalaua Pali OPP OPP170824	1915	26.1	45.0	6.58	98,8	8.11	1.85	1.55	1.36	Z	2	0	01	-5	

## COASTAL AND ENVIRONMENTAL CONDITION NOTES

Most recent low tide time/height (Lahaina station):	high 5:09 am / 1.65 ft low 10:49 am / 0.2 ft
Moon Day (from new)	3/4
Cloud Cover (1-8):	1
Rain Conditions (last 24 hours)	HONE
Wind conditions (Trades? Kona?):	TRADE
Streams flowing? (Y/N)	MA

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

NIM Blank Veading high affer deaning SPASPACEN OF AT DES OPM NEAR OSEAN VERT HIGH TURDEDSTT FOR GPM

Waves: 0 ft = no waves; 1 ft = small waves; 2 ft = knee high; 3 ft = waist high

ople: Swimmers/Kayakers/Surfers, On beach, Campers: 0, 1-5, 5-10, 10-20, 20-40

	Blank	Low	Med	High		
Standard		5,49	570	625		
Pre	0.33	5.53	56.9	625		
Post	0.05	5.46	51-1	625		

	Total # of samples	Relinquished To::	Contact
Sediment	0	LHS	GEORGE BURNE
Nutrient	6	LHS	GEORGE BURNER
Bacteria	0		

Signature (Lead):

Er & Mak

MATER QUALITY SAMPLING:

Team: Samplers: Date: Start time: Finish time: Olowalu - 26 G. BUNDETTE 08/24/17

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
OPM170824-N-1	Martin Hale			0711	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OCO170824-N-1	Camp Olowalu	Q		0150	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OMM170824-N-1	Mile Marker 14	b		0811	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OUB170824-N-1	Ukumehame			8833	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OPB170824-N-1	Papalaua Beach	G/		6853	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
OPP170824-N-1	Papalaua Pali	tz		0915	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							
OPM170824-S-1	Martin Hale				500		
OCO170824-S-1	Camp Olowalu				500		
OMM170824-S-1	Mile Marker 14				500		
OUB170824-S-1	Ukumehame				500		
OPB170824-S-1	Papalaua Beach				500		
OPP170824-S-1	Papalaua Pali				500		

Sy I Mito to

mapwell, C; Stone, A; Itchemann, C; Hutchings, L

Team/ Session:	Samplers: Last Name, 1st Initial	Instrument #	Probe #s	pН	DO	Salinity	Date:	1 <sup>st</sup> Sample Time	End Sample Time:	
NR2R	Lead: BANKER, B	40d: 1	40d:	4	Z	3	8/25/17	7:53	In:30	
26	Notetaker: BAULCHA, 13	2100q:		,					10	

Location Name	Time	Temp	Sal	DO	DO Sat	»III	T	Lidik. On	ELD	Warra	Wind		People		TSS ?	
Location (vame		(C)	(ppt)	(mg/L)	(%)	pН	Tur	bidity (N	10)	Waves	Wind	Swim	Beach	Camp	155 .	
Honolua Bay RHL RHL170825	07:53	25.6	34.6	6,31	93.9	8.12	1.13	1.14	160	1	1	7	De			
Fleming North RFN RFN170825	9.34	26.3	34.9	6-60	99.5	8.12	1.11	1.24	1.20	3	4	0	0	0		
Oneloa Bay RON RON170825	9.15	265	35.2	6.72	102.1	8.17	1.20	133	1.26	3	4	4	2	X		
Kapalua Bay RFS RFS170825	9:38	27.0	33.6	6.56	99.4	8,09	1.31	1.05	1.47	(	1	504	35	8		
Ka'opala Bay RKO RKO170825	10:10	26.9	34.9	6.09	92.8	8.09	3.38	3.08	3.AI	0	1	3204	C	0		
Kahana Village RKV RKV170825	10:30	26.8	345	6.29	95.4	8.07	7.75	7.07	6.12	1	1	×	10	80		

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Most recent low tide time/height (Lahaina	Low 11:26 a.m.;
station):	High 5:53 a.m.
Moon Day (from new)	4
Cloud Cover (1-8):	1
Rain Conditions (last 24 hours)	YRS
Wind conditions (Trades? Kona?):	TRAPES
Streams flowing? (Y/N)	N

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

RHL-100 SIFNS OF RAIN

RFN-1311 pudches in Parking lotative
Shore break, no evidence of howen water

RKV-3 FISHING

\* Duplicate nutrient sounde-Fleming 0. zum Filter 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

	Blank	Low	Med	High
Standard		5.49	57.0	625
Pre	0.04	5.50	56.9	625
Post	0-04	5.46	570	1.24

	Total # of samples	Relinquished To::	Contact
Sediment	0	LHS	Baker B
Nutrient	. 7	LHS	Baker B
Bacteria	D		Baker B

Maxwell, Stone A, Hehemann C, Hutchings L

WATER QUALITY SAMPLING:

Team:	Samplers: Last Name, 1st Initial	Date:	Start time:	Finish time:	
NR2R - 26	Bauker B	8/25/17	7:30	10:50	

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients						BARBARA ELECTRICA	RELEASE FOR
RHL170825-N-1	Honolua Bay	Ø		07:53	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RFN170825-N-1	Fleming North	Ø		08:34	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RON170825-N-1	Oneloa Bay	Ď		09:15	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RFS170825-N-1	Kapalua Bay	Ø		09:38	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RKO170825-N-1	Ka'opala Bay	Ø		10:10	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RKV170825-N-1	Kahana Village	Þ		10:30	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
RFN170825-N-2	Fleming North	Ŋ,		08:34	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
Sediment							BESTELL
RHL170825-S-1	Honolua Bay				500		
RFN170825-S-1	Fleming North				500		
RON170825-S-1	Oneloa Bay				500		
RFS170825-S-1	Kapalua Bay				500		
RKO170825-S-1	Ka'opala Bay				500		
RKV170825-S-1	Kahana Village				500		

\* Duplicale nutrient sample-Flemong (o.z/m filter).

BUBON