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

Session No: Verifiers: Pre date: Pre time: Post: Date: Post time: 36 Reed, D. 3/12/18 9:30 3/16/18 11:5am

Hui O Ka Wai Ola

	C	Ilnan,	L.		OTTETTO				Otomo, L; Ma	exwell, C	
QA/QC Check	Inst#	Probe #	Last Cal Date		PR Verificati		Verificat	ST: ion Value	Acceptable Range (Check range)	Comments/ Notes	QA?
Temperature	(Temp)		n/a	Std	23.2	(3)	23.7		± 1°C of NIST	Within 1°C	
	2	2	n/a		23	3, 2	24.0)			
	2	3	n/a	20000055025000	23	3. [
Salinity				Std	0.64	33. 2	(1/13/175H) 33.Z	NATIONAL PROPERTY OF ANALOGUE SERVICE AND	± 3%, blank	33.95 – 36.05	
	2	2	1/8/18		0.04	33,2	33.1				
	2	3	1 /8/18		0.04	33.2					
Dissolved Oxygen				Std	10	0%	loog	lo	Post-check ± 5 % of pre-check (0- 100%)	80 – 120 %	
	2	2	8/1/17		99	7.3	100.	5			
	2	1	3/28/17		100	0.2					
pН				Std	7.00	10.01	7.00	10.61	± 3 % of calibration solution (6-8)	6.79 – 7.21	
	2	3	3/12/18		7.01	16.64	7.01	10.03		22.4°C 10.04 F 22.3°C 7.01	KE
	2	4	3/12/18		7.01	10.04				23.5°C 22.3°C	

QA: * Are pre- and post within one week?

* Delay times are ok?

* Other equipment issues?

New NIST Temp Probe Expiration 10/20/2019

Team	R2RS	Samplers (Last Name, 1st Initial)	FREIBERG, T., Jamakani, B.	Mete	Meters and Probes ID				
Session	36		T Compale 11	HQ40	0d: Z		2100Q:		
Date	3/13/18		Schröder, 1., Schröder M	pH:	3	DO:	2	Salinity: て	,

Location	Temp Salinity Dissolved Oxygen			Turbidity V			Waves Wind			People			Nutrient			
Name Sample ID	Time	(°C)	(ppt)	(mg/L)	(%)	pН		(NTU)		(0-3)	(0-6)	water	beach	camp	TSS	duplicate
Napili Bay RNS180313	8:10	2208	34.4	7.04	99.3	8.16	1.14	1,32	1.39	2-3FT	2	0	2	_		
Pohaku RPO180313	8:40	77.80	32.2	7.13	99.1	8.16	8.40	8.21	8.62	2-3	3	10	b	7		_ ·
Kaanapali Sh RKS180313	9:02	21.5	24.0	7.66	99.7	81.8	7.91	7.81	8.07	3	7	1	ð	1		
Airport Bch RAB180313	9:22	73.6	33.9	MS6.88, 10	98.0	8.16	76	890	7.60	- 2	0	2	104	_		
Canoe Beach RCB180313	9:39	24.3	33.0	6.97	99.9	8.18	1.47	1.30	1:46	1-2	0	0	1	_		0
Wahikuli RWA180313	9.56	24:4	34.1	6.84	989	8.20	,90	.91	94		0	0	0	J		

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high Wind: 0: calm; 3: gentle breeze; 6: strong breeze

COASTAL AND ENVIRONMENTAL CONDITIONS								
Most recent tide time (falling or rising)	Low: 8:43 am High: 1:47 pm	Lahaina Rising	Station					
Moon day (from new)		26						
Cloud cover (0-8)	8							
Rain conditions (last 24 hrs)	LIGHTSPR	sicces	rain					
Wind direction (Trades/Kona)	Trades							
Streams flowing? (Y/N)	not sure							

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).	
Use the back of the form if needed,	
Wow, big waves dark and distral day. forking for EKS to perhing lot for in Kaanapal States ped parking lot - 90 dn to fort - tell attendant water Qual. To	5 est
Light rain Canoe beach Watikuli - g couple walkers on sidewalk	
Still light Run-but getting lighter.	

TURBIDITY VERIFICATION										
	Blank	Low	Med	High						
Standard	0.05	5.28	55,7	627						
Pre-sampling	0106	5-31	55.7	627						
Post-sampling	0.06	5.35	55.9	627						

CHAIN OF CUSTODY INFORMATION								
	# of samples	Relinquished to	Contact					
Sediment	O	LHS	Othy Maxwell					
Nutrients	6	LHS	Cothy Maxwell					
Bacteria								

Signature (Team Lead):	Printed Name:
Ochlewi Marwell	Cathy Maxwell

Team:	Notetaker:	Last Name, 1st Initial	Date:
R2RS - 36	Schroeder	, M	3/13/18

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
RNS180313-N-1	Napili Bay	图		8:10	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RPO180313-N-1	Pokahu	ď		8:40	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RKS180313-N-1	Kaanapali Sh	Ø		9:62	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RAB180313-N-1	Airport Beach	22		9:22	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RCB180313-N-1	Canoe Beach	Ø		9:39	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RWA180313-N-1	Wahikuli	Ø		9:56	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
Sediment - TSS							
RNS180313-S-1	Napili Bay				500		
RPO180313-S-1	Pokahu				500		
RKS180313-S-1	Kaanapali Sh				500		
RAB180313-S-1	Airport Beach				500		
RCB180313-S-1	Canoe Beach				500		
RWA180313-S-1	Wahikuli				500		

Signature (Team Lead):	Print name here:
atherin Maxwel	Oathy Maxwell
	7

1/31/18 Blank pretest for turbidity was high 12. Others were fine. PFF tubidity was over 10 (however this is not a sediment sample site. A sediment sample was taken at PLH due to numbers over 11 PLT was in 45 which surprised Jun + Rich. Kit has a peroneal tendon to so stayed at truck today. Sites completed in record time Kit Harry 2/1/18 SAMPLES SLOWARD DODAY - GENCE, LATTE AND ACCHARD. UNUSUALLY LIGHT TURBODEM AT OPM (MARTER HALE). EVERTTEEN EISE NORMAR 660164 BUNPETTE 3/13/18 Ridge DRS - gloomsof, Cloudy, light rain Would guess at least RKS stream running-it was colder, more turbid, bad getting in and out of water - more is boarded up - paule in "paid" parking for Kaanapali Shores - Terry talked to affendant and we gave Hui DKa Wai Ola cord total him every three weeks. " 012", bra" pull in get ticket go all the way back to the left almost to beach. Marie Schroeder

Team Polanui	Samplers Bayly, R	Meters and Probes ID	
Session 36	(Last Name, Brown, M	HQ40d: 2 2100Q:	
Date 3/14/18	Harris, K	pH: 3 DO: Z Salinity: Z	?

Location Name		Temp	Salinity	Dissolved	Oxygen		Turbidity		Turbidity		Wind	People				Nutrient
Sample ID	Time	(°C)	(ppt)	(mg/L)	(%)	pН		(NTU)		Waves (0-3)	(0-6)	water	beach	camp	TSS	duplicate
505 Front St PFF180314	8:15	24.1	34.0	5.84	84.2	8.06	3.96	4.82	4.92	0	0	3	2 9032	C		
Lindsey Hale PLH180314	8:38	24.2	33.7	5.97	86.1	8.04	6.34	5.25	7.82	٥	0	3	4 dogs	0	×	
Lahaina Town PLT180314	9:00	24.5	33,3	5.91	85.6	8,03	1.86	1.91	2.07	٥	٥	0	1 39	۵		
Puamana PPU180314	9:36	24.4	34.1	6.97	101.2	8.18	3.19	4.28	4.48	1	۵	Ş	۵	۵		
Launiupoko OLP180314	9:54	24.9	34.6	7.07	103.7	8.16	3.57	2.51	3.29	j	۵	Ġ	3	٥		
Olowalu Pier OSF180314	10:23	24.8	34.5	6.89	100.9	8.11	4.06	5.16	4.72	٥	۵	٥	0	0		

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high Wind: 0: calm; 3: gentle breeze; 6: strong breeze

COASTAL AND ENVIRONMENTAL CONDITIONS						
Most recent tide time (falling or rising)	Low: 8:54 AM Lahaina Station High: 2:20 PM Lahaina Station					
Moon day (from new)	27					
Cloud cover (0-8)	8					
Rain conditions (last 24 hrs)	- 2					
Wind direction (Trades/Kona)	ne wind					
Streams flowing? (Y/N)	Y					

Siteans nowing: (1714)	CHAIN OF CU	STODY INFORMAT	TION
NOTES AND COMMENTS (trends, equipment problems, errors, concerns).		# of samples	Relinquished to
Use the back of the form if needed.	Sediment		LH5
PFF - flowing moderate PLH - no flow	Nutrients	6	6/45
DSE- increasing amounts of a brown	Bacteria		
DSF- increasing amounts of a brown algae on tocks in the water surrounding the pier.	Signature (Tea	m Lead):	Printed Name:

TURBIDITY VE	RIFICATION			
	Blank	Low	Med	High
Standard	0.06	5.28	55.7	627
Pre-sampling	0.08	5,26	55.9	627
Post-sampling	0.04	5.28	55.9	426

CHAIN OF CUSTODY INFORMATION								
	# of samples	Relinquished to	Contact					
Sediment		LH5	D. Reed					
Nutrients	6	6/45	D. Reed					
Bacteria								

Signature (Team Lead):	Printed Name:
Alm Ran	Dana Reed

Team:	Samplers:	Date:	Start time:	Finish time:
Polanui - 36		3/14/18		

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients			14454	2003/2000		A CONTRACTOR OF THE PROPERTY O	经国际股份的企业
PFF180314-N-1	505 Front St	A		8:15	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
PLH180314-N-1	Lindsey Hale	A		8:38	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
PLT180314-N-1	Lahaina Town	Ä		9:00	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
PPU180314-N-1	Puamana	Ā		9:36	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OLP180314-N-1	Launiupoko	À		9:54	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OSF180314-N-1	Olowalu SF	¥		10:23	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
Sediment							, 一种的一种, 一种 一种 一种 一种 一种 一种 一种 一种
PFF180314-S-1	505 Front St				500		
PLH180314-S-1	Lindsey Hale	M			500	Turb ~7 NTU	
PLT180314-S-1	Lahaina Town				500		
PPU180314-S-1	Puamana				500		
OLP180314-S-1	Launiupoko				500		
OSF180314-S-1	Olowalu SF				500		

Signature (Team Lead):	Printed Name:	
Dan Jan	Dana	Reed

Hui O Ka Vasi Ola - Sample Collection Datashoet

Team Olowalu	Samplers NOPONEN, R	Meters and Probes ID	
Session 36	(Last Name, OTO MO, L 1st Initial) LANIERI, L	HQ40d: 2	2100Q: 1
Date 3/15/18		pH: 3 DO:	2 Salinity: 2

Location Name		Temp	Salinity	Dissolved	Oxygen		da este	Turbidity		Waves	Wind		People		i dia sa	Nutrient
Sample ID	Time	(°C)	(ppt)	(mg/L)	(%)	pН		(NTU)		(0-3)	(0-6)	water	beach	camp	TSS	duplicate
Martin Hale OPM180315	0715	23.9	34.1	6.19	88.9	8.05	4.21	4,23	4.32	i	0	0	0	0	0	0
Camp Olowalu OCO180315	0731	24,3	34.3	6.52	94,4	8,08	8,06	8.88	8.15	2	0	2	5	0		
Mile Marker 14 OMM180315	0745	24.3	34.2	6.34	91.8	8.01	8.42	8.47	9.20	ì	0	0	次	0		
Ukumehame OUB180315	0800	24.3		6.83	99.0	80,8	9.15	8.53	8.27	2	0	0	l	0		
Papalaua Beach OPB180315	0814	1 . ~	34.6	6.93	101,3	8,13	6.58	7.80	7.31	2	0	0	0	0		
Papalaua Pali OPP180315	0830	24.9	34.6	c.87	100.6	8.07	7.64	i.67	7.22	2	0	6	0	3		
	Waves: Oft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high															

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high Wind: 0: calm; 3: gentle breeze; 6: strong breeze

COASTAL AND ENVIRONMENTAL CONDITIONS						
Most recent tide time (falling or rising)	Low: 3:11 AM Lahaina Station High: 9:12 AM Lahaina Station					
Moon day (from new)	28					
Cloud cover (0-8)						
Rain conditions (last 24 hrs)	0					
Wind direction (Trades/Kona)	LIGHT KONA					
Streams flowing? (Y/N)	P/A					

NOTES AND COMMENTS (trends, equipment problems, errors, conce	ems).
Use the back of the form if needed.	80.0
, ese the back of the form is necessary	A

TURBIDITY VE	RIFICATION			
	Blank	Low	Med	High
Standard	0.04	5,28	55.7	627
Pre-sampling	0.05	5.27	56.0	626
Post-sampling	0.05	5.28	56.0	626

CHAIN OF CUSTODY INFORMATION								
	# of samples	Relinquished to	Contact					
Sediment	Ø	LHS	D. Red					
Nutrients	6	LHS	D. Rood					
Bacteria								

Signature (Te	am- Le i	ad):
(/ / / \		ノイト
Mun	\mathcal{T}) sal

Printed Name: Dana Reed

Team:	Samplers:	Date:	Start time:	Finish time:
Olowalu - 36		3/15/18		

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							and the second state of the second
OPM180315-N-1	Martin Hale	īŞK.		7:15	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OCO180315-N-1	Camp Olowalu	Æ		7:31	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OMM180315-N-1	Mile Marker 14	ÞÍ		7:45	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OUB180315-N-1	Ukumehame	A		8:00	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OPB180315-N-1	Papalaua Beach	Ø		8:14	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OPP180315-N-1	Papalaua Pali	Q.		8:30	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
Sediment		State of the					
OPM180315-S-1	Martin Hale				500		
OCO180315-S-1	Camp Olowalu				500		
OMM180315-S-1	Mile Marker 14				500		
OUB180315-S-1	Ukumehame				500		
OPB180315-S-1	Papalaua Beach				500		
OPP180315-S-1	Papalaua Pali				500		

Signature (Team Lead):	Printed Name:			
Dan Real	Dana Reed			

Team	R2RN	Samplers	Reed, D.	Meters and Probes II	D
Session	36	1st Initial)	RathCon, B.	HQ40d: 2	2100Q: /
Date	3/16/18		Hehemann, C.	pH: 3 DC	D: 2 Salinity: 2

Location		Temp	Salinity	Dissolved	Oxygen		Tur	rbidity	Waves	Wind		People			Nutrient
Name Sample ID	Time	(°C)	(ppt)	(mg/L)	(%)	pН	r e	NTU)	(0-3)	(0-6)	water	beach	camp	TSS	duplicate
Honolua Bay RHL180316	7:48	23.4	33.5	6.09	86.5	8.10	10.1 10	0.0 10.5	Ф	Ф	ф	2	ф	×	
Fleming Nrth RFN180316	8:35	24.2	34.6	6.94	100.4	8.17	1.53 1.	.51 1.53	2	ф	1	3	ф		
Oneloa Bay RON180316	9:05	24.7	34.7	7.09	103.7	5.18	0.480	.42 0.44	1	ф	8	15	Ф		
Kapalua Bay RFS180316	9:35	25.1	32.2	7.14	103.4	8.14	1.04 1.	.17 1.16	Φ	ϕ	750+	50+	P		
Ka'opala By RKO180316	10:01	25.3	33.4	6.69	98.1	8.10	7.25 6.	.89 6.98	1	Φ	5	2	0		
Kahana Vill RKV180316	10:25	25.8	33.6	6.82	100.8	8.13	4.21 4.	16 4.20	Ф	1)	9	d		

Waves: Off: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high Wind: 0: calm; 3: gentle breeze; 6: strong breeze

Med

55.7

56.1

High

627

627

626

COASTAL AND ENVIRONMENTAL CONDITIONS					
Most recent tide time (falling or rising)	Low: High:	9:34 am 3:28 pm	Lahaina Station Rising		
Moon day (from new)			1		
Cloud cover (0-8)			Φ		
Rain conditions (last 24 hrs)			Light		
Wind direction (Trades/Kona)		ķ	(ona)		
Streams flowing? (Y/N)		Y			

CHAIN OF CUSTODY INFORMATION						
	# of samples	Relinquished to	Contact			
Sediment)	LHS	Cathy Maxie			
Nutrients	6	LHS	Carly Maxwe			
Racteria			0 11 00			

TURBIDITY VERIFICATION

Standard

Pre-sampling

Post-sampling

Blank

0.05

0.18

NOTES AND	COMMENTS	(trends,	equipment	problems,	errors, concerns).
Ise the back of	the form if nee	ded			

RHL-moderate to light flow RFN- no flow water very clear at Onelsa RFS- lots of speople within sampling vicinits Started clouding are about RKO.

CHAIN OF CUSTODY INFORMATION				
	# of samples	Relinquished to	Contact	
Sediment		LHS	Cathy Maxwell	
Nutrients	6	LHS	Carty Maxwell	
Bacteria	0		Cothy Maxwell	

Low

5,28

Signature (Team Lead):	Printed Name:
Carlenie Maxwel	Cothy Maxwell

Team:	Notetaker:	Last Name, 1st Initial	Date:
R2RN - 36	Reed, D		3/16/18

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
RHL180316-N-1	Honolua Bay	g		7:48	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RFN180316-N-1	Fleming North	U U		8:35	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RON180316-N-1	Oneloa Bay	V		9:05	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RFS180316-N-1	Kapalua Bay			9:35	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RKO180316-N-1	Ka'opala Bay	Ū.		10.01	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RKV180316-N-1	Kahana Village	R		10:25	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
Sediment - TSS							
RHL180316-S-1	Honolua Bay	M		7:48	500		
RFN180316-S-1	Fleming North				500		
RON180316-S-1	Oneloa Bay				500		
RFS180316-S-1	Kapalua Bay				500		
RKO180316-S-1	Ka'opala Bay				500		
RKV180316-S-1	Kahana Village				500		

Signature (Team Lead):	Print name here:		
Cookerie Maxwell	Cathy Maxwell		