

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

Teams:	Technician:	Session No:	Pre date:	Pre time:	Post: Date:	Post time:
	Dana Reed	20	4/17/17	1:25 PM	4/20/17	10:15

QA/QC Check	Inst #	Probe #	Last Cal Date	Verification Standard		PRE: Verification Value		POST: Verification Value		Acceptable Range (Check range)	Comments/ Notes
Temperature			—			24.8		25.4		± 1°C of NIST	Within 1°C
	2	S-2	—			25.1		25.7			
Salinity				0ppt	35ppt	0.04	33.4	0.04	33.4	± 3%, blank	33.95 – 36.05
	2	2	3/6/17	0.4	33.4	0.04	33.4	0.04	33.3		Temp 26.1 C (33.4) Temp 25.7
Dissolved Oxygen				100%		100%		100%		Post-check ± 5 % of pre-check (0-100%)	80 – 120 %
	2	2	7/25/16			97.6%		99.2%			
pH				7	10	7.00	10.01	7.00	10.01	± 3 % of calibration solution (6-8)	6.79 – 7.21
	2	3	4/17/17	7.00	10.01	7.00	10.01	7.01	10.00		Before Cal pH 7.00 read 6.99 / Post temp 26.3 C

Notes:

* Observers

IN-SITU READINGS:

Team:	Samplers:	Instrument #	Probe #s	Date:	Start time:	Finish time:
R2R	Brenda, Marie	40d: 2	S: 2 pH: 3	4/18/17	7:30	9:37
20	Terry, Ty, (Bruce) * * (Lory), Alana	2100q 1	DO: 2			

Location Name	Time	Temp (C)	Sal (ppt)	DO (mg/L)	DO Saturation (%)	pH	Turbidity ¹ (NTU)			Comments		
										Waves	Swimmers	Wind
Napili Bay RNA RNS170418	7:48	24.8 24.8 24.7	34.0	6.84	99.5	8.15	0.97	1.05	0.98	sets	0	calm
Pohaku RPO RPO170418	8:12	24.8 24.7	31.8	6.59	94.6	8.17	3.65	3.07	2.99	calm, clear	no one around	calm 38
Kaanapali Shores RKS RKS170418	8:34	24.0 24.1 24.1	24.4	7.26	98.6	8.22	2.48	2.72	2.58	calm, small shore break	1	calm
Airport Beach RAB RAB170418	8:53	26.1 26.0	33.5	6.53	96.9	8.16	0.95	0.90	1.02	calm gorgeous	12 swimmers Snorkelers SUPers	calm
Canoe Beach RCB RCB170418	9:10	26.1 26.0	33.1	6.60	97.7	8.16	1.13	0.86	1.08	very calm with sm. wave sets	lots - 10 Snorkelers 4 SUPers	very calm
Wahikuli RWA RWA170418	9:26	25.9 25.9 25.8	33.0	6.57	96.8	8.18	0.86	1.00	0.91	very calm sets of waves	0	still
Turbidity Verification Pre:	Blank:	0.06	Low: 0-10	5.75	Med: 10-100	58.0	High: 100-1000	628.	Comment			
Post:	Blank:	0.06	0-10	5.69	10-100	58.3	100-1000	627				

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Tide height 7:00 a.m. (Lahiana station) 0.7 feet, falling

Moon: 23

Cloud Cover (1-8): 1

Wind conditions (general): very calm

Rain Conditions (general): Beautiful day, clear, Sunny

* Observers

WATER QUALITY SAMPLING:

Team:	Samplers:	Date:	Start time:	Finish time:
R2R	Brandi, Marie, Terry, Ty, (Kruce), *Lori*, Atana	4/18/17	7:30	9:37

Sample No	Location Name	Time	Vol (mL)	Nutrient Bottle?	SSC ?	Quality control notes	Grab sample?
RNS170418-N-1	Napili	7:48	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RNS170418-S-1	Napili		500		X		<input type="checkbox"/>
RPO170418-N-1	Pokahu	8:12	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RPO170418-S-1	Pokahu		500		X		<input type="checkbox"/>
RKS170418-N-1	Kaanapali Sh	8:34	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RKS170418-S-1	Kaanapali Sh		500		X		<input type="checkbox"/>
RAB170418-N-1	Airport Beach	8:53	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RAB170418-S-1	Airport Beach		500		X		<input type="checkbox"/>
RCB170418-N-1	Canoe Beach	9:10	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RCB170418-S-1	Canoe Beach		500		X		<input type="checkbox"/>
RWA170418-N-1	Wahikuli	9:26	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RWA170418-S-1	Wahikuli		500		X		<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Handwritten signature

Hui O Ka Wai Ola, 12/12/2016

Cathy & Jim
Kit
AnnaLee
Mitch (observing) & Bruce (photographer)

IN-SITU READINGS:

Team:	Samplers:	Instrument #	Probe #s	Date:	Start time:	Finish time:
Polanui	Jim	40d: 2	S: 2 pH: 3	4/19/17	8:08am	10:40 am
20		2100q 1	DO: 2			

Location Name	Time	Temp (C)	Sal (ppt)	DO (mg/L)	DO Saturation (%)	pH	Turbidity ¹ (NTU)			Comments		
										Waves	Swimmers	Wind
505 Front St PFF PFF170419	8:18am	25.8	32.7	6.44	94.7	8.12	2.07	2.19	2.29	stream running (4) water looks muddy	X2 kayaks	<5 knots
Lindsey Hale PLH PLH170419	8:45am	25.9	33.7	6.43	95.3	8.11	9.30	9.30	8.65	100% cloud cover (can see blue sky, clouds more dense than last site), no waves	no swimmers	<5 knots
Lahaina Town PLT PLT170419	9:06am	26.2	33.0	6.24	92.6	8.10	11.5	12.1	10.5	stream running calm	cox sup likely + turbidity	5 knots
Puamana PPU PPU170419	9:30am	26.1	34.1	6.63	99.0	8.18 10.18	1.63	1.77	1.51	1' surf clouds clearing	none	<5 knot wind
Launiupoko OLP OLP170419	10:00am	26.7	34.4	6.74	101.8	8.18	2.59	2.57	2.44	clouds clearing (80%) 1'-2' surf	surfers far out 1 surfer entered water during sampling	<5 knots
Olowalu Pier OSF OSF170419	10:25am	27.0	34.3	6.97	105.7	8.15	1.55	1.42	1.53	no clouds, calm water, clear water	none	<1 knot wind
Turbidity Verification Pre:	Blank:	0.08	Low: 0-10	5.74	Med: 10-100	58.2	High: 100-1000	628	Comment			
Post:	Blank:	0.05	0-10	5.68	10-100	58.2	100-1000	626				

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Tide height 7:00 a.m. (Lahiana station) 0.6 feet falling

Moon: 24

Cloud Cover (1-8): 7 - can see blue sky (thin clouds)
(cleared to 0 by the time arrived at Olowalu)

Wind conditions (general): [scale of 1-8]: 2

Rain Conditions (general): 0

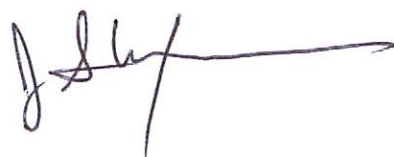
Replicate sample: Use 2 syringes & 2 filters. Collect water in both and filter into N-1 bottle (both syringes). Then mix sample and pour half into N-2 bottle.

Hui O Ka Wai Ola, 12/12/2016

WATER QUALITY SAMPLING:

Team:	Samplers:	Date:	Start time:	Finish time:
Polanui	Jim, Kit, Angeline, Cathy	4/19/17	8:18 am	10:40 am

Sample No	Location Name	Time	Vol (mL)	Nutrient Bottle?	SSC ?	Quality control notes	Grab sample?
PFF170419-N-1	505 Front St		125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
PFF170419-S-1	505 Front St		500		X		<input type="checkbox"/>
PLH170419-N-1	Lindsey Hale		125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
PLH170419-S-1	Lindsey Hale		500		X		<input checked="" type="checkbox"/>
PLT170419-N-1	Lahaina Town		125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
PLT170419-S-1	Lahaina Town		500		X		<input checked="" type="checkbox"/>
PPU170419-N-1	Puamana		125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
PPU170419-N-2	Puamana		125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
PPU170419-S-1	Puamana		500		X		<input type="checkbox"/>
OLP170419-N-1	Launiupoko		125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OLP170419-S-1	Launiupoko		500		X		<input type="checkbox"/>
OSF170419-N-1	Olowalu SF		125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OSF170419-S-1	Olowalu SF		500		X		<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>



Hui O Ka Wai Ola, 12/12/2016

IN-SITU READINGS:

Team:	Samplers:	Instrument #	Probe #s	Date:	Start time:	Finish time:
Olowalu	Michelle Garton	40d: 2	S: 2 pH: 3	4/20/17	7:10	8:45
20	JOHN VOORHEE	2100q 1	DO: 2			

Location Name	Time	Temp (C)	Sal (ppt)	DO (mg/L)	DO Saturation (%)	pH	Turbidity ¹ (NTU)			Comments		
										Waves	Swimmers	Wind
Martin Hale OPM OPM170420	7:15	25.7	33.9	5.82	86.1	8.04	1.54	1.63	1.66	Small	Ø	Light
Camp Olowalu OCO OCO170420	7:30	27.1	34.3	6.14	93.6	8.09	13.2	13.3	13.5	FLAT	Ø 1-KAYAK	"
Mile Marker 14 OMM OMM170420	7:50	26.3	33.9	6.19	92.5	8.02	12.8	12.4	12.6	Small	Ø	"
Ukumehame OUB OUB170420	8:05	25.9	34.3	6.54	97.3	8.10	6.81	7.06	7.13	2'	Ø	"
Papalaua Beach OPB OPB170420	8:20	26.0	34.2	6.60	98.1	8.09	3.67	4.07	4.50	2'	Ø	"
Papalaua Pali OPP OPP170420	8:40	26.7	34.6	6.50	98.2	8.11	5.84	4.92	5.16	2'	Ø TENT	"
Turbidity Verification Pre:	Blank:	.07	Low: 0-10	5.69	Med: 10-100	58.2	High: 100-1000	627	Comment			
Post:	Blank:	.06	0-10	5.71	10-100	58.2	100-1000	627				

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Tide height 7:00 a.m. (Lahiana station) 0.5 feet falling

Moon: 25

Cloud Cover (1-8): 5

Wind conditions (general):

Light - on shore

Rain Conditions (general):

HARD RAIN during the night

WATER QUALITY SAMPLING:

Team:	Samplers:	Date:	Start time:	Finish time:
Olowalu	Michelle Griffoul John Vookys	4/20/17	7:10	8:45

Sample No	Location Name	Time	Vol (mL)	Nutrient Bottle?	SSC ?	Quality control notes	Grab sample?
OPM170420-N-1	Martin Hale	7:15	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OPM170420-S-1	Martin Hale		500		X		<input type="checkbox"/>
OCO170420-N-1	Camp Olowalu	7:30	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OCO170420-S-1	Camp Olowalu		500		X		<input checked="" type="checkbox"/>
OMM170420-N-1	Mile Marker 14	7:50	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OMM170420-S-1	Mile Marker 14		500		X		<input checked="" type="checkbox"/>
OUB170420-N-1	Ukumehame	8:05	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OUB170420-S-1	Ukumehame		500		X		<input type="checkbox"/>
OPB170420-N-1	Papalaua Beach	8:20	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OPB170420-S-1	Papalaua Beach		500		X		<input type="checkbox"/>
OPP170420-N-1	Papalaua Pali	8:40	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OPP170420-S-1	Papalaua Pali		500		X		<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Dana for Michelle Griffoul

Hui O Ka Wai Ola, 12/12/2016