FDEP Biology Lab-Toxicity Section
Test Instrument Serial Number Page
Method: EPA-821-R-02-012

METER / DEVICE	ID	SOP	Parameter	Method	Benchsheet Code
YSI Model 58 Dissolved Oxygen Meter	90H018262	TA-06.04	Dissolved Oxygen	SM 4500 O G	DO1
Thermo Scientific Orion Star A213 Benchtop RDO/DOMeter	SN X49117 Probe: 019059	TA-06.39	Dissolved Oxygen	SM 4500 O G	DO2
Accumet AR-10 pH Meter	93312105	TA-06.23	pH	SM 4500 H+	PH1
Fisherbrand FE150 pH Meter	SN 2753630 Probe: S35932 Temp: S35934	TA-06.37	pH	SM 4500 H+	PH2
Mettler-Toledo SevenMulti Conductivity Meter	SN 1225117049 Probe H04257	TA-06.25	Conductivity Salinity	SM 2510 B SM 2520 B	COND1
Traceable Bench Conductivity Meter	SN 170814827	TA-06.36	Conductivity Salinity	SM 2510 B SM 2520 B	COND2
Hach Ammonia Mid-Range Kit for freshwater	Kit Lot # A6070	TA-06.33	Ammonia	SM 4500 NH3	NH32
Hach Ammonia Kit NI-SA for saltwater	Kit Lot # A6055	TA-06.33	Ammonia	SM 4500 NH3	NH31
Hach Ammonia Nitrogen Pocket Colorimeter II	Kit Lot # A8051	TA-06.35	Ammonia	SM 4500 NH4	NH34
Traceable Thermometer	#7-SN 160858747 Probe #181156302	TA-06.05	Temperature	SM-2530B modified & DEP SOP-001/01 FT1400	#7
Traceable Thermometer	#6-SN150057760 Probe #181156300	TA-06.05	Temperature	SM-2530B modified & DEP SOP-001/01 FT1400	#6B
Hach Chlorine Pocket Colorimeter II	#2-05050C026378	TA-06.22	Total Residual Chlorine	EPA 330.5 SM 4500 CL G	#2
Alkalinity (Hach Kit)	No SN	TA-06.08	Alkalinity	SM 2320 B	ALK1
Hardness (Hach Kit)	No SN	TA-06.08	Hardness	SM 2340 C	HARD1
Mettler Toledo XA105	B314195659	PCR-2.2	Weight	-	BAL1
Mettler Toledo 403TS/00	B815673069	TA-06.34	Weight	-	BAL2
S-Weights	BIO-S-WEIGHTS-01	NA	Balance check	-	S01

FDEP Biology Laboratory - Toxicity Section
Acute Bioassay Facility Bench Sheet

Method: EPA-821-R-02-012

Sample Collection: Date:_____ Time:_____
Hold Time Start: Date:_____ Time:_____

Test 1 of 2 Start Date:_____ **Time:**_____
Test 2 of 2 Start Date:_____ **Time:**_____

Test 1 of 2 End Date:_____ **Time:**_____
Test 2 of 2 End Date:_____ **Time:**_____

Facility:_____

_____

Address:_____

_____

County:_____

NPDES Permit #: FL _____

Contact/District: _____

LIMS Job #:_____ **LIMS Sample #:**_____

LIMS Entry:_____ **Verified:**_____

Test Type
☐ Screen
☐ Definitive
☐ Static
☐ Flow-through

Test Duration
☐ 48 hours
☐ 96 hours
☐ ___ hours

Initial Sample Handling:							
pH adjustment:		**Aeration:**		**Dechlorination:**		**Salinity:**	
Yes	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Initial pH: _____		**Initial DO:** _____mg/L		**Initial TRC:** _____ mg/L		**Inititial Salinity:** _____ ppt	
NaOH: _____N		**Final DO:** _____mg/L		_____ mL of 0.025 N Sodium Thiosulfate per liter of sample.		**Final Salinity:** _____ ppt	
Hcl: _____N		**Duration:** _____minutes		**Final TRC:** _____mg/L		**Salts Hypersaline brine**	
_____Drops ml		**Rate:** ~ _____ bubbles per min					
Final pH: _____							

Sample Validation:		
Temperature Shipped ≤ 6°C:	**Yes**	**No**
If Hand Delivered, Cooling:	**Yes**	**No**
Received: _____ °C **Collected:** _____ °C		
Holding Time ≤ 36 Hours:	**Yes**	**No**
(Composite: End of collection; Grab: When collected; 4 in 24: Time last sample collected)		

Artemia Batch #'s
0 hr _____
24 hr _____
48 hr _____
72 hr _____

***Artemia* Lot #** _____

Food	Days Used
YCT Batch # _____	
YCT Batch # _____	
***P. subcapitata* Batch #** _____	
***P. subcapitata* Batch #** _____	
C. dubia fed 0.2 ml of *YCT and and *P. subcapitata* in a 1:1 ratio *C. leedsi, P. promelas, M. beryllina, and A. bahia* fed 0.2 ml of *Artemia* . *YCT= yeast, cereal leaves and trout chow	

Reviewer_____

Comments:

LIMS Sample #: _____

FDEP Biology Laboratory- Toxicity Section
Acute Bioassay Water Quality Information Sheet

Method: EPA-821-R-02-012

Water Quality Parameters	MHWCD LIMS ID # _____ Batch # _____	MHWCD LIMS ID # _____ Batch # _____	MHW LIMS ID # _____ Batch # _____	MHW LIMS ID # _____ Batch # _____	ASW LIMS ID # _____ Batch # _____	Sample 2 LIMS # _____	Method	SOP	Measured By:	Transcription Checked by:
Field Total Residual Cl_2 (mg/L)	N/A	N/A	N/A	N/A	N/A		HACH			
Lab Total Residual Cl_2 (mg/L)							HACH	TA-06.22		
Alkalinity (mg/L as $CaCO_3$)							HACH	TA-06.08		
Hardness (mg/L as $CaCO_3$)							HACH	TA-06.08		
Total Ammonia (mg/L as N)							HACH	TA-06.35 or TA-06.33		
Conductivity □ µmhos □ mmh							FISCHER	TA-06.36		
Salinity (ppt)							FISCHER	TA-06.36		
Days Used										

Comments:

FDEP Biology Laboratory- Toxicity Section
Acute Bioassay Water Quality Information Sheet

Method: EPA-821-R-02-012

FDEP Biology Laboratory- Toxicity Section
Acute Bioassay Water Quality Information Sheet

Method: EPA-821-R-02-012

FDEP Biology Laboratory - Toxicity Section
Acute Bioassay Information Sheet

Method: EPA-821-R-02-012

Test 1 of 2

LIMS Sample #: _____

Start Date: _____ **Time:** _____

End Date: _____ **Time:** _____

Test Species	
☐	*Cyprinella leedsi* (SOP: TA-07.02)
☐	*Ceriodaphnia dubia* (SOP: TA-07.01)
☐	*Pimephales promelas* (SOP TA-07.02)
☐	*Menidia beryllina* (SOP TA-07.04)
☐	*Americamysis bahia* (SOP TA-07.03)
Batch #:_____	Age: _____

	Diluent	Batch #/LIMS #	Days Used
Concentrations Prepared by:_____			
Test Loaded by:_____			
Loading Verified by:_____			

Chamber Size _____ mL Test Volume _____mL

Feeding Times	
AM	PM
0 hr * _____	0 hr _____
24 hr_____	24 hr_____
48 hr * _____	48 hr _____
72 hr _____	72 hr _____

*0 hr AM is prior to test and 48 hr AM is prior to renewal

Temperature Range (°C)

Incubator #_____

Min._____ Max._____

Test

Min._____ Max._____

Room B246

Min._____ Max._____

Test Results

Method: EPA	95% Confidence Intervals		% mortality in 100%
Statistics:	LC50	Lower	Upper
48 hour:			
96 hour:			

Test Validation

Control Survival ≥ 90%:	Yes	No
Temperature Range ≤ 3° C:	Yes	No

Stats Calculated by/Date:_____ Stats Verified by/Date:_____

Comments:

FDEP Biology Laboratory -Toxicity Section
Acute Bioassay Survival Sheet
Method: EPA-821-R-02-012

LIMS Sample #: ____________________

Concentration (%)	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Control								
Organisms loaded by:		Checked by:						
Verified by:								

Concentrations at 48 hrs prepared by: _______

BR = before renewal AR = after renewal hr = hour M = missing

Comments:

FDEP Biology Laboratory -Toxicity Section
Acute Bioassay Survival Sheet
Method: EPA-821-R-02-012

FDEP Biology Laboratory - Toxicity Section
Acute Bioassay Parameter Sheet

Method: EPA-821-R-02-012

Test 1 of 2

	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos) **circle one**	**Salinity** (ppt)
0 Hours	Control						
	Measured by:						
	Recorded by:						
	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos)	**Salinity** (ppt)
24 Hours	Control						
	Measured by:						
	Recorded by:						
	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos)	**Salinity** (ppt)
48 Hours Before Renewal	Control						
	Measured by:						
	Recorded by:						

DO = Dissolved oxygen

Comments:

FDEP Biology Laboratory - Toxicity Section
Acute Bioassay Parameter Sheet

Method: EPA-821-R-02-012

Test 1 of 2

	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos) **Circle one**	**Salinity** (ppt)
48 Hours After Renewal	Control						
	Measured by:						
	Recorded by:						

	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos)	**Salinity** (ppt)
72 Hours	Control						
	Measured by:						
	Recorded by:						

	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos)	**Salinity** (ppt)
96 Hours	Control						
	Measured by:						
	Recorded by:						

DO = Dissolved oxygen

Comments:

FDEP Biology Laboratory - Toxicity Section
Test Instrument Page
Method: EPA-821-R-02-012

Test ID: **Dates:**

METER / DEVICE	Instrument Code
DO Meter	
pH Meter	
Conductivity Meter	
Ammonia Kit	
Traceable Thermometer	
Chlorine Kit	
Alkalinity Kit	
Hardness Kit	
Balances used:	
Weights used:	

Entered by and date:

Comments:

FDEP Biology Laboratory - Toxicity Section
Acute Bioassay Information Sheet

Method: EPA-821-R-02-012

Test 2 of 2

LIMS Sample #: _____

Start Date: _____ **Time:** _____

End Date: _____ **Time:** _____

Concentrations Prepared by:_____	Diluent	Batch #/LIMS ID #	Days Used
Test Loaded by:_____			
Loading Verified by:_____			

Chamber Size _____mL Test Volume _____mL

Test Species	
☐	*Cyprinella leedsi* (SOP: TA-07.02)
☐	*Ceriodaphnia dubia* (SOP: TA-07.01)
☐	*Pimephales promelas* (SOP TA-07.02)
☐	*Menidia beryllina* (SOP TA-07.04)
☐	*Americamysis bahia* (SOP TA-07.03)

Batch #:_____ Age: _____

Feeding Times	
AM	PM
0 hr* _____	0 hr _____
24 hr_____	24 hr_____
48 hr* _____	48 hr _____
72 hr _____	72 hr _____

*0 hr AM is prior to test and 48 hr AM is prior to renewal

Temperature Range (°C)

Incubator #_____

Min._____ Max._____

Test

Min._____ Max._____

Room B246

Min._____ Max._____

Test Results

Method: EPA		95% Confidence Intervals		% mortality in 100%
Statistics:	LC50	Lower	Upper	
48 hour:				
96 hour:				

Test Validation

Control Survival ≥ 90%:	Yes	No
Temperature Range ≤ 3° C:	Yes	No

Stats Calculated by/Date:_____ **Stats Verified by/Date:**_____

Comments:

FDEP Biology Laboratory - Toxicity Section
Acute Bioassay Information Sheet

Method: EPA-821-R-02-012

FDEP Biology Laboratory - Toxicity Section
Acute Bioassay Information Sheet

Method: EPA-821-R-02-012

FDEP Biology Laboratory -Toxicity Section
Acute Bioassay Survival Sheet

Method: EPA-821-R-02-012

LIMS Sample #: ____________________

Concentration (%)	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Control								
Organisms loaded by:		**Checked by:**						

Verified by:

Concentrations at 48 hrs by:

BR = before renewal **AR = after renewal** **hr = hour** **M = missing**

Comments:

FDEP Biology Laboratory - Toxicity Section
Acute Bioassay Parameter Sheet

Method: EPA-821-R-02-012

Test 2 of 2

	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos) **Circle one**	**Salinity** (ppt)
0 Hours	Control						
	Measured by:						
	Recorded by:						

	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos)	**Salinity** (ppt)
24 Hours	Control						
	Measured by:						
	Recorded by:						

	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos)	**Salinity** (ppt)
48 Hours Before Renewal	Control						
	Measured by:						
	Recorded by:						

Comments:

FDEP Biology Laboratory - Toxicity Section
Acute Bioassay Parameter Sheet

Method: EPA-821-R-02-012

Test 2 of 2

	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos) **Circle one**	**Salinity** (ppt)
48 Hours After Renewal	Control						
	Measured by:						
	Recorded by:						

	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos)	**Salinity** (ppt)
72 Hours	Control						
	Measured by:						
	Recorded by:						

	Concentration	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (umhos/mmhos)	**Salinity** (ppt)
96 Hours	Control						
	Measured by:						
	Recorded by:						

Comments:

FDEP Biology Laboratory - Toxicity Section
Test Instrument Page
Method: EPA-821-R-02-012

Test ID: **Dates:**

METER / DEVICE	Instrument Code
DO Meter	
pH Meter	
Conductivity Meter	
Ammonia Kit	
Traceable Thermometer	
Chlorine Kit	
Alkalinity Kit	
Hardness Kit	
Balances used:	
Weights used:	

Entered by and date:

Comments: