

Effluent Quality Assessment

Florida Distillers Company – Auburndale

Polk County

NPDES #FL0003051

Sampled February 18, 2013

May 2013

Biology Section
Bureau of Laboratories
Division of Environmental Assessment and Restoration
Quality Manual No. 870346G
NELAC Certification No. E31780

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Florida Distillers Company – Auburndale, 425 Recker Highway, Auburndale, Polk County, Florida, 33823. NPDES #FL0003051.

Facility Overview

Florida Distillers - Auburndale produces distilled and blended alcoholic beverages. Industrial wastewater is treated onsite. Residual solids are shipped to a separate facility. See Appendix A for a description of the facility, summary of permit limits, Administrative Order (AO) and Discharge Monitoring Report (DMR) information.

Methods

Effluent grab and composite samples for biological and chemical analyses for this facility were collected on February 18, 2013. All samples were collected from the EFF-2 NPDES sampling point for Outfall D-002 by Peter Wenner (FDEP Southwest District) following DEP-SOP-001/01 FS 2400 Wastewater Sampling (see Appendix C).

The 96-hour acute screening toxicity tests and the algal growth potential test were performed following internal DEP SOPs TA07_01, TA07_02 and TA08_01 through TA08_09 (see Appendix C).

Results

Chemistry Results (See Table 1 and Appendix D)

- Total residual chlorine was not detected in the bioassay sample in the laboratory. Total ammonia (0.241 mg/L as N) was detected in the bioassay sample in the laboratory. The total ammonia concentration in the composite sample collected and preserved for chemical analysis was 0.32 mg N/L. Based on the pH, salinity, and temperature of the effluent as collected, the calculated unionized ammonia concentration was < 0.02 mg/L.
- Arsenic, copper, iron, carbonaceous biochemical oxygen demand (CBOD), effluent turbidity, total ammonia and total nitrogen were detected in the effluent at levels that comply with Class III Freshwater Quality Criteria (62-302.530, F.A.C.) and/or permitted limits. Chromium- III, lead, nickel, zinc, and total suspended solids were detected between the laboratory method detection limits (MDL) and practical quantitation limits (PQL).

Algal Growth Potential (See Table 2 and Appendix D)

- The effluent Algal Growth Potential (AGP) was 7.97 AJ mg dry wt/L of the unicellular green alga, *Pseudokirchneriella subcapitata*, formerly known as *Selenastrum capricornutum*. Raschke and Schultz (1987) determined that AGP values above 5.0 mg dry weight/L represent a “problem” threshold for fresh receiving waters, implying nutrient enrichment. The Total N:P ratio suggests that the effluent is co-limited by both nitrogen and phosphorus. An analysis for ortho-phosphate was not performed; therefore, a total soluble inorganic nitrogen to ortho-phosphate ratio could not be determined (Miller et al. 1978).

Toxicity Test Results (See Appendices E- G)

- Tests were performed February 19 - 23, 2013.

Ceriodaphnia dubia 96-hour acute screening bioassay –	LC_{50} > 100%, 0%* mortality in 100% sample at 96 hours
Pimephales promelas 96-hour acute screening bioassay –	LC_{50} > 100%, 0%* mortality in 100% sample at 96 hours

*NOTE: In a 96-hour acute screening test of 100% effluent, mortality of <20% provides confidence that the effluent meets the acute toxicity criterion of Florida's Surface Water Quality Standards (Rule 62-302.500 (1) (a) 4, F.A.C.). Mortality between 20-50% indicates low to moderate levels of toxicity, and further action may be required. Mortality of >50% indicates that the effluent fails to meet the minimum requirement to discharge to waters of the state (Rule 62-4.244(3) (a), F.A.C.).

- The bioassay sample was not acutely toxic to the test organisms.
- The sample was aerated for 25 minutes at a rate of approximately 100 bubbles per minute to decrease the dissolved oxygen (DO) from 10.8 mg/L to 7.5 mg/L.

Conclusion

The effluent sample collected from the EFF-2 NPDES sampling point for this facility on February 18, 2013, was not acutely toxic to either test species during the 96-hour acute screening bioassays. The effluent AGP result was greater than the "problem" threshold for fresh receiving waters suggesting that nutrient enrichment may be an issue. Effluent water quality samples collected on February 18, 2013, did not exceed any applicable water quality standards or violate any permit conditions.

Literature Cited

Miller, W. E., T. E. Maloney, and J. C. Greene. 1978. The *Selenastrum capricornutum* Printz algal assay bottle test. EPA-600/9-78-018. U. S. EPA, Cincinnati, Ohio. 126 p.

Raschke, R. L. and D. A. Schultz. 1987. The use of the algal growth potential test for data assessment. J. Wat. Poll. Cont. Fed. 59(4): 222-227.

Table 1. Effluent limits, Class III Freshwater Criteria, chemical and microbiological data, and qualifiers.

Florida Distillers Company - Auburndale	Class III Criteria	Effluent Limits	Effluent	
Metals (µg/L unless otherwise noted)				
Arsenic	≤ 50	-	7.01	
Cadmium	≤ 0.3 b	-	0.05	U
Chromium-III	≤ 103.6 b	-	1.1	I
Copper	≤ 11.3 b	≤ 11.3 bp	10.4	
Iron	≤ 1,000	-	120	
Lead	≤ 4.2 b	-	0.32	I
Nickel	≤ 63.1 b	-	0.91	I
Selenium	≤ 5.0	-	0.2	U
Sodium (mg/L)	-	Report	45.9	
Silver	≤ 0.07	-	0.025	U
Zinc	≤ 144.9 b	≤ 144.9 bp	13	I
Nutrients (mg/L)				
Total Phosphorus	-	Report	0.078	
Total Ammonia	-	≤ 2.0	0.32	
Un-ionized Ammonia	≤ 0.02 s	≤ 0.02 c	< 0.02	c
Nitrate and Nitrite	-	-	0.08	
Total Kjeldahl Nitrogen	-	-	1.4	
Organic Nitrogen	-	-	1.08	c
Total Nitrogen	-	≤ 4.4 p	1.48	c
General Physical and Chemical Parameters				
Dissolved Oxygen (mg/L)	≥ 5.0	≥ 5.0	9.9	
pH (SU)	6.0 - 8.5	-	7.5	
Conductivity (µmhos/cm)	≤ 1,275	-	486	
Temperature (°C)	-	Report	16.6	
Salinity	-	-	< 0.28	c
Total Residual Chlorine (mg/L)	≤ 0.01	≤ 0.01	≤ 0.03	UQ£
Total Suspended Solids (mg/L)	-	≤ 30.0 p	10	I
Turbidity (NTU)	< 29 t	-	4.9	
CBOD, 5 day (mg/L), N - inhibited	-	≤ 26.0	3.9	
Flow (MGD)	-	0.238	0.233	a*
Hardness (mg $CaCO_3$)	-	-	125.19	c
Microbiology (Number of colony forming units/100ml)				
Fecal Coliforms ¥	≤ 400s #	≤ 400s #	1	U

Value exceeds the Class III Water Quality Criteria or permit limits

a - Annual average

b - Value is calculated based on hardness

c - Value is calculated

p - 24 hour flow proportioned composite

t - Shall not exceed 29 NTUs above background

I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

Q - Sample held beyond normal holding time

U - Material analyzed for but not detected; value reported is the method detection limit

¥ - Fecal coliform analysis performed by Advanced Environmental Laboratory

- If 10 or fewer samples are taken within a month, the single sample limit is 400 CFU (62-302.530(6), F.A.C.)

£ - measurement taken in the FDEP laboratory

* - measured 1/2012 - 12/2012

Table 2. Measured and predicted algal growth potential (AGP; mg dry weight/L) for total soluble inorganic nitrogen (TSIN), total nitrogen (TN) and total phosphorus (TP) limitation of the freshwater species *Pseudokirchneriella subcapitata* and ratios of nitrogen to phosphorus.

Florida Distillers Company - Auburndale				
Location	AGP (measured)	Predicted AGP (TSIN) ± 20%	Predicted AGP (TN) ± 20%	Predicted AGP (TP) ± 20%	Total N:P ratio
Effluent (C)	7.97 AJ	15.2 ± 3.0	56.2 ± 11.2	33.5 ± 6.7	19.0

A - Value reported is the mean of two or more determinations

J - Result qualified due to RPD failure in lab duplicate

Appendix A
Facility Summary

State of Florida
Department of Environmental Protection
Facility Introduction & Summary

PART I: Information gathered prior to sampling event	
Prepared By: Peter Wenner	**Contact Number:** 813-632-7600 x430
Facility Name (as it appears on permit): Florida Distillers Company – Auburndale	**Former Names:** N/A
NPDES Permit Number: FL0003051-005-IW1S/RO	**Permit Expiration Date:** November 20, 2013
Physical Address: 425 Recker Highway, Auburndale, FL 33823	
District: Southwest	**County:** Polk
Function of Facility: This facility produces distilled and blended alcoholic beverages. Citrus or cane molasses, yeast, and water are mixed together, fermented, and subsequently distilled. The distilled product is blended, packaged, and sold.	
Facility Type: Industrial	**Permitted Capacity (MGD):** 0.0283 (AA) 0.5 (MA)
Mean Flow for previous 12 months for all EXTERNAL outfalls listed in permit (list date range including months): Outfall D-002: 0.216 MGD	
If applicable, Mean Flow for previous 12 months for REUSE outfall(s) (list date range including months): N/A	
Description of type of Discharge: ☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify**	

Description of Sampling Location(s) - actual permit designation of permitted sampling point(s):

Sample Point	Description of Monitoring Location
FLW-1	Flow Recorder located at point of discharge at outfall D-002
EFF-2	Point of discharge at Outfall D-002
OUI-1	Sampling point at the UV disinfection system

Description of Permitted Outfall(s):

EFFLUENT DISPOSAL:

Surface Water Discharge:

An existing 0.283 MGD annual average daily flow (AADF) (based on 0.5 MGD monthly average flow for seven months of operation) discharges to Lake Lena Run (Class III Fresh waters), D-002. The discharge to Lake Lena Run (WBID 1501A) outfall line is approximately 8 feet in length, discharges at a depth of approximately 3 feet and the point of discharge is located approximately at latitude 28° 03' 30" N, longitude 81° 48' 10" W. (See Attachment A)

Description of Treatment Process (if multiple discharge points, include a detailed map or diagram of facility):

WASTEWATER TREATMENT:

The liquid waste stream, consisting of evaporator condensate; boiler blowdown; cooling tower blowdown; reverse osmosis concentrate; wash-ups and spills from the fermenters; winery and brewing cooling water from the blending and bottling operations; and sanitary wastes are discharged and neutralized in lined Pond B with a capacity of 625,000 gallons. The wastewater is pumped from Pond B to aeration tanks R-1 and R-2, each tank with a capacity 423,000 gallons, where it receives biological treatment. Wastewater then flows to Pond A for further aeration, and then pumped to the clarifiers for clarification and initial settling of sludge. The supernatant from the clarifiers is pumped through the UV unit for disinfection and is discharged to a polishing pond (Pond C) with a capacity of 1.0 million gallons. In addition, Pond C receives reverse osmosis (RO) concentrate, membrane cleaning rinse water, condensate from boiler, CO_2 HX/ Vac pumps/ bottle warmer from which pond water discharged to Lake Lena Run through Outfall D-002.

The solids are discharged from the clarifiers to primary and secondary digesters and thickened. The thickened sludge (1-2% solids) is loaded onto tankers trucks and is land applied in a residuals management area located in Lake Alfred, Florida.

Chlorination of wastewater is required as a backup disinfection method only, when the UV system malfunctions. Total residual chlorine shall be monitored weekly when the UV system malfunctions or is repaired.

PART I: Continued

List current Effluent Limits of Outfall(s) to be Sampled: This should include any AO or CO limits the facility may be under
(Leave cell blank if not applicable)

	Discharge Limitations				Monitoring Requirements		
Parameters (units)	**Annual Average**	**Monthly Average**	**Daily Maximum**	**Daily Minimum**	**Monitoring Frequency**	**Sample Type**	**Sample Point**
Flow (MGD)	0.283	0.5	Report	--	Continuous	Recorder	FLW-1
Oxygen, Dissolved (DO) (MG/L)	--	Report	--	5.0	Weekly	Instantaneous	EFF-2
pH (SU)	--	--	8.5 See Cond. I.A.11	6.0	Weekly	Instantaneous	EFF-2
Solids, Total Suspended (MG/L)	--	20.0	30.0	--	Weekly	24-hour flow proportioned composite	EFF-2
Chlorine, Total Residual (MG/L)	--	Report	0.01 See Cond. I.A.12	--	Weekly	Grab	EFF-2
Sodium, Total Recoverable (MG/L)	--	Report	Report	--	Monthly	24-hour flow proportioned composite	EFF-2
Nitrogen, Ammonia, Total (as N) (MG/L)	--	1.0	2.0 See Cond. I.A.11	--	Weekly	Grab	EFF-2
Nitrogen, Ammonia, Total unionized (as NH_3) (MG/L)	--	Report	0.02 See Cond. I.A.11	--	Weekly	Calculated	EFF-2
Temperature (C), Water (DEG.C)	--	Report	Report See Cond. I.A.11	--	Weekly	Instantaneous	EFF-2
Nitrogen, Total (MG/L)	Report	Report	4.4	--	Monthly	24-hour flow proportioned composite	EFF-2

	Discharge Limitations				Monitoring Requirements		
Parameters (units)	**Annual Average**	**Monthly Average**	**Daily Maximum**	**Daily Minimum**	**Monitoring Frequency**	**Sample Type**	**Sample Point**
Nitrogen, Total (KG/YEAR)	607.9 See Cond. I.A.8	Report	--	--	Monthly	24-hour flow proportioned composite	EFF-2
Phosphorus, Total (as P) (MG/L)	--	Report	Report	--	Monthly	24-hour flow proportioned composite	EFF-2
Zinc, Total Recoverable (UG/L)	--	Report	See Cond. I.A.3.	--	Monthly	24-hour flow proportioned composite	EFF-2
Copper, Total Recoverable (UG/L)	- -	Report	See Cond. I.A.4.	--	Monthly	24-hour flow proportioned composite	EFF-2
Hardness, Total (as CaCO3) (MG/L)	--	Report	Report See Cond. I.A.3, 4	--	Monthly	24-hour flow proportioned composite	EFF-2
BOD, Carbonaceous 5 day, 20C (MG/L)	Report	13.0	26.0	--	Weekly	24-hour flow proportioned composite	EFF-2
BOD, Carbonaceous 5 day, 20C (KG/MONTH)	Report	147.6 See. Cond. I.A.6	--	--	Weekly	24-hour flow proportioned composite	EFF-2
Coliform, Fecal (#/100ML)	See Cond. I.A.5 & I.A.7				3 days/week	Grab	EFF-2
Turbidity (NTU)	--	Report	Report	--	Weekly	Meter	OUI-1
Ultraviolet Light Transmittance (PERCENT)	--	--	--	Report	Weekly	Meter	OUI-1
Ultraviolet Light Dosage (MW-S/CM2)	--	--	--	25	Weekly	Meter	OUI-1
Whole Effluent Toxicity	See Permit Condition I.A.9						EFF-2

PART I: Continued

Receiving Waters:	**Classification (indicate whether fresh or marine):**
Lake Lena Run	Class III Freshwater

Toxicity Test Requirements (routine and/or additional test language, test species, salinity adjustment, etc.):
See separate email attachment entitled, "FL Distillers-Auburndale Toxicity Language"

Administrative or Consent Orders (date executed, specific requirements, interim limit dates-if applicable, etc.):
Currently under AO-117-SW for reduction of TN and CBOD (copy of AO forwarded as separate email attachment).

Facility Mixing Zone Details (if applicable):

List Permit Violations (DMR data) and plant upsets that occurred at the plant within the last year:

Date	Parameter and (Units)	Limit	Result
February 2012 April 2012	Flow (MGD) Un-ionized NH_3 (mg/L)	0.283 0.02	0.284 0.07

Describe previous FYI and WQBEL study:
2006 FYI report submitted as separate email attachment

Describe previous or current Enforcement Actions (including WLs):
In accordance with the EPA approved "Final Peace River Basin, Florida, Dissolved Oxygen, Nutrients, Turbidity and TSS Total Maximum Daily Load (TMDL)", Total Nitrogen (TN) shall not exceed 607.9 Kg TN load as a rolling annual average. This is an 80% reduction of this facility's previously permitted load.

Describe any violations or problems noted in previous inspection:

Discuss whether DMR trends within previous five years are improving or declining:

Additional Comments (this should include a trend of the Effluent, i.e. if the facility is now Reuse):

Florida Distillers-Auburndale, Permit #: FL0003051; FYI3 PART II: Sampling Event Information	
Date(s) sample collected: 18 February 2013	**Sampler(s):** Peter Wenner, Rebecca Nipper
Temperature (Deg C): 16.64	**pH (SU):** 7.50
Dissolved Oxygen (mg/L): 9.85	**Conductivity (umhos/cm):** 486
Total Residual Chlorine (mg/L): N/A	**Total Residual Chlorine - after Disinfection (mg/L):** N/A
Method of Chlorination: N/A	**Method of De-chlorination:** N/A
Flow During Sample Collection for each outfall(MGD): D-002: Flow for 02/18/2013 during time of sample collection: 0.218 MGD	
Mean Flow for each outfall for previous 12 months based on sampling date (If samples are taken on more than one day, indicate Mean Flow for each day): D-002 (01/2012-12/2012): 0.233 MGD	
Describe Discharge during Sampling Event: ☒ **Continuous** ☐ **Intermittent** ☐ **Seasonal** ☐ **Rainfall Dependent** ☐ **Other, please specify**	
Describe any conditions, difficulties or abnormal events that occurred during the sample collection and any other additional comments here:	

Florida Department of Environmental Protection

Central Laboratory Sample Submittal Form

Event ID *

Request Number: RQ-2013-02-18-18
FYI3 Florida Distillers Co @ Auburndale Sampling

Customer: SW-DIST
Project ID: FYI3
PMAS: 1143

Requester: Michelle Fish
Collected By: PETE WENNER
Sampling Agency: FDEP / SWD

Field Report Prepared By: PETE WENNER
Send Final Report To: Ilia Balcom
PETE WENNER

Lab ID *	Location	Collection (comp begin or grab) / Eastern / Central	Composite end / Eastern / Central	Bottle Group(s)**
40596	D-001	☐ Comp ☑ Grab Date 2/18/13 Time 1025	Date Time	A
	Field ID	Tot Res Chlorine (mg/L) N/A; Diss Oxygen (mg/L) 9.85	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc) EFFLUENT (FRESH); Temp (C) 16.64; pH 7.50	Sample Depth ☑ m 0.2 ☐ ft; Salinity (PPTh) 486 ☑ Sp Conductance (umho/cm)	NPDES Number	
	Latitude ☐ dd ☐ dms; Longitude ☐ dd	Comments		

Lab ID *	Location	Collection (comp begin or grab) / Eastern / Central	Composite end / Eastern / Central	Bottle Group(s)**
40597	D-001	☑ Comp ☐ Grab Date 2/17/13 Time 0900	Date 2/18/13 Time 0900	B
	Field ID	Tot Res Chlorine (mg/L); Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc) EFFLUENT (FRESH); Temp (C); pH	Sample Depth ☐ m ☐ ft; Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
	Latitude ☐ dd ☐ dms; Longitude ☐ dd	Comments		

Lab ID *	Location	Collection (comp begin or grab) / Eastern / Central	Composite end / Eastern / Central	Bottle Group(s)**
40598	FIELD BLANK	☐ Comp ☑ Grab Date 2/18/13 Time 1030	Date Time	C
	Field ID	Tot Res Chlorine (mg/L); Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc) DE H_2O; Temp (C); pH	Sample Depth ☐ m ☐ ft; Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
	Latitude ☐ dd ☐ dms; Longitude ☐ dd ☐ dms	Comments		

Lab ID *	Location	Collection (comp begin or grab) / Eastern / Central	Composite end / Eastern / Central	Bottle Group(s)**
		☐ Comp ☐ Grab Date Time	Date Time	
	Field ID	Tot Res Chlorine (mg/L); Diss Oxygen (mg/L)	Storet Station Number	
	Matrix (include type e.g. Salt, Fresh, etc); Temp (C); pH	Sample Depth ☐ m ☐ ft; Salinity (PPTh) ☐ Sp Conductance (umho/cm)	NPDES Number	
	Latitude ☐ dd ☐ dms; Longitude ☐ dd ☐ dms	Comments		

Relinquished By:	Date/Time	Shipping Method:	Received By:	Date/Time	Relinquished By:	Date/Time	Received By:	Date/Time
	2/18/13 1600	FEDEX	ABP	2/19/13 0940				

1009 2/19/13
took 2 bioassay trays
M. Faircloth

* Shaded Areas for Lab use only.

** Please see reverse side for Bottle Group information.

last revised October 1, 2003

Appendix C

Explanation of Measurements

(1) Quality Assurance and Quality Control

FDEP's quality assurance requirements for analytical laboratories and field activities are codified in Chapter 62-160, F.A.C., Quality Assurance (QA Rule) and in internal Standard Operating Procedures (FDEP SOPs). Methods for all analyses are on file at the FDEP Central Laboratory in Tallahassee and may be viewed on the web at http://www.floridadep.org/labs/sop/index.htm and/or http://www.floridadep.org/labs/qa/index.htm.

(2) Chemical Analyses of the Effluent

The effluent was analyzed for nutrients, metals, organic constituents (base, neutral, and acid extractables) and pesticides following FDEP SOPs. The results from these analyses were compared with Water Quality Criteria (62-302, F.A.C.) and facility permit limits. Exceedances of Water Quality Criteria may constitute violations of specific provisions of Chapter 62-302 (F.A.C.) and/ or facility permit limits.

(3) Toxicity Bioassays

Greater than 50% mortality in an acute toxicity test may constitute an exceedance of 62-302.500(1)a and/or a violation of facility permit limits. An inhibition concentration greater than 25% in a chronic test may constitute exceedances of 62-302.530(20), 62-302.530(61) and/or a violation of facility permit limits. A no observed effect concentration (NOEC) less than 100% effluent in a chronic test may constitute an exceedance of 62-302.530(61) and/or a violation of facility permit limits. Standard reference toxicant (SRT) tests are conducted monthly to ensure quality in toxicity testing.

(4) Bacteriological Testing

High levels of fecal coliform bacteria may constitute an exceedance of 62-302.530(6) and/or a violation of facility permit limits. Fecal coliform and enterococci results often are based on colony counts outside the acceptable range (B-qualifier). The dilutions performed on the sample did not yield results within the method acceptable range of 20-60 colony forming units per plate. The B-qualifier does not affect data quality.

(5) Algal Growth Potential (AGP)

The algal growth potential (AGP) value is the peak growth of the alga within that 14-day period, recorded as mg dry weight/L. Raschke and Shultz (1987) found that an AGP above 5.0 mg dry weight/L represents a “problem” threshold for fresh receiving waters, implying nutrient enrichment. High AGP values may constitute exceedances of 62-302.530(46), F.A.C., 62-302.530(47)(a), F.A.C. and/or 62-302.530(47)(b), F.A.C.

The concentration of nutrients in a water sample may be used to calculate the expected yield of AGP under the assumption that other required nutrients (e.g. silicon, micronutrients) are present in excess (Miller *et al*. 1978). The expected amount of production is calculated as 38 times the total soluble inorganic nitrogen (nitrate and nitrite plus ammonia) under nitrogen limitation or 430 times the ortho-phosphate (OP) concentration under phosphorus limitation with an error of $\pm$ 20%. When the ratio of nitrogen to phosphorus (N: P) is less than 10:1, nitrogen limitation of algal production is likely. When the N: P ratio is 20:1 or greater, phosphorus limitation is likely (USEPA 2000). For ratios in-between, co-limitation may occur. Production of lower biomass than expected may be evidence of growth inhibition related to toxic compounds present in the water sample tested and may constitute an exceedance of 62-302.530(61), F.A.C.

(7) Chlorophyll *a* Content

Chlorophyll *a* content is an estimate of algal biomass. High algal biomass implies nutrient stress (Stevenson and Bahls 1999) and may be constitute exceedances of 62-302.530(46) F.A.C., 62-302.530(47)(a) F.A.C. and/or 62-302.530(47)(b) F.A.C.

(8) Definition of Qualifiers

A - Value reported is the mean of two or more determinations
B - Results based on colony counts outside the acceptable range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value
K - Actual value is known to be less than value given
L - Actual value is known to be greater than value given
N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate
Z - Colonies were too numerous to count (TNTC)

Appendix D
Chemical Analyses of Effluent

Date Sampled	Field ID	Analysis Group	Components	Result	Remark	Units	MDL	PQL
2/18/2013 9:00	40597	AGP/LN	Algal Growth Potential	7.97	AJ	mg DryWt/L	0.3	0.9
2/18/2013 9:00	40597	Chlorophyll/Grain Size/BOD	Biochemical Oxygen Demand-5 Day,N-Inhib	3.9		mg/L	0.2	2
2/18/2013 9:00	40597	Chlorophyll/Grain Size/BOD	Phaeophytin-a	2.9	A	ug/L	0.69	2.1
2/18/2013 9:00	40597	Chlorophyll/Grain Size/BOD	Chlorophyll-a, Corrected	7	A	ug/L	0.95	2.9
2/18/2013 9:00	40597	Toxicology	Bioassay-Acute-Screen-FW-Fish, LC50	100	L	LC50		
2/18/2013 9:00	40597	Toxicology	Bioassay-Acute-Screen-FW-C.dubia, LC50	100	L	LC50		
2/18/2013 9:00	40597	Metals	Potassium	23.5		mg/L	0.6	2.4
2/18/2013 9:00	40597	Metals	Silver	0.025	U	ug/L	0.025	0.1
2/18/2013 9:00	40597	Metals	Sodium	45.9		mg/L	0.5	2
2/18/2013 9:00	40597	Metals	Magnesium	15		mg/L	0.04	0.16
2/18/2013 9:00	40597	Metals	Copper	10.4		ug/L	0.5	1
2/18/2013 9:00	40597	Metals	Nickel	0.91	I	ug/L	0.25	1
2/18/2013 9:00	40597	Metals	Selenium	0.2	U	ug/L	0.2	0.8
2/18/2013 9:00	40597	Metals	Iron	120		ug/L	30	120
2/18/2013 9:00	40597	Metals	Arsenic	7.01		ug/L	0.25	1
2/18/2013 9:00	40597	Metals	Cadmium	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Metals	Zinc	13	I	ug/L	5	20
2/18/2013 9:00	40597	Metals	Chromium	1.1	I	ug/L	0.3	1.2
2/18/2013 9:00	40597	Metals	Lead	0.32	I	ug/L	0.2	0.8
2/18/2013 9:00	40597	Metals	Hardness	125		mg/L	0.4	1.6
2/18/2013 9:00	40597	Metals	Calcium	25.4		mg/L	0.075	0.3
2/18/2013 9:00	40597	Nutrients	Total-P	0.078		mg P/L	0.005	0.05
2/18/2013 9:00	40597	Nutrients	TSS	10	I	mg/L	2	10
2/18/2013 9:00	40597	Nutrients	NO2NO3-N	0.08		mg N/L	0.004	0.01
2/18/2013 9:00	40597	Nutrients	Turbidity	4.9		NTU	0.1	0.1
2/18/2013 9:00	40597	Nutrients	Kjeldahl Nitrogen	1.4		mg N/L	0.08	0.2
2/18/2013 9:00	40597	Pesticides	Chlorpyrifos Ethyl	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Ethoprop	0.025	U	ug/L	0.025	0.1
2/18/2013 9:00	40597	Pesticides	Phorate	0.025	U	ug/L	0.025	0.1
2/18/2013 9:00	40597	Pesticides	Simazine	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Atrazine	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Bromacil	0.2	U	ug/L	0.2	0.8
2/18/2013 9:00	40597	Pesticides	Chlorpyrifos Methyl	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Fenamiphos	0.15	U	ug/L	0.15	0.6
2/18/2013 9:00	40597	Pesticides	Fonofos	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Azinphos Methyl	0.1	UJ	ug/L	0.1	0.4
2/18/2013 9:00	40597	Pesticides	Malathion	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Metalaxyl	0.2	U	ug/L	0.2	0.8

Date Sampled	Field ID	Analysis Group	Components	Result	Remark	Units	MDL	PQL
2/18/2013 9:00	40597	Pesticides	Prometryn	0.1	U	ug/L	0.1	0.4
2/18/2013 9:00	40597	Pesticides	Hexazinone	0.15	U	ug/L	0.15	0.6
2/18/2013 9:00	40597	Pesticides	Norflurazon	0.15	U	ug/L	0.15	0.6
2/18/2013 9:00	40597	Pesticides	Parathion Methyl	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Alachlor	0.3	U	ug/L	0.3	1.2
2/18/2013 9:00	40597	Pesticides	Butylate	0.1	U	ug/L	0.1	0.4
2/18/2013 9:00	40597	Pesticides	Ethion	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Metribuzin	0.1	U	ug/L	0.1	0.4
2/18/2013 9:00	40597	Pesticides	Parathion Ethyl	0.1	U	ug/L	0.1	0.4
2/18/2013 9:00	40597	Pesticides	Ametryn	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Diazinon	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Metolachlor	0.3	U	ug/L	0.3	1.2
2/18/2013 9:00	40597	Pesticides	Mevinphos	0.05	U	ug/L	0.05	0.2
2/18/2013 9:00	40597	Pesticides	Naled	0.2	U	ug/L	0.2	0.8
2/18/2013 9:00	40597	Priority Organic Pollutants	1,2,4-Trichlorobenzene	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	Benzo(a)anthracene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Pyrene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Nitrobenzene	2.7	U	ug/L	2.7	11
2/18/2013 9:00	40597	Priority Organic Pollutants	Indeno(1,2,3-cd)pyrene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Butyl benzyl phthalate	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	4-Nitrophenol	20	U	ug/L	20	80
2/18/2013 9:00	40597	Priority Organic Pollutants	4-Bromophenyl phenyl ether	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	N-Nitrosodi-n-propylamine	2.7	U	ug/L	2.7	11
2/18/2013 9:00	40597	Priority Organic Pollutants	Pentachlorophenol	4	UJ	ug/L	4	16
2/18/2013 9:00	40597	Priority Organic Pollutants	2,4,6-Trichlorophenol	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	3,3'-Dichlorobenzidine	53	U	ug/L	53	210
2/18/2013 9:00	40597	Priority Organic Pollutants	Benzo(a)pyrene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Bis(2-chloroisopropyl)ether	4	U	ug/L	4	16
2/18/2013 9:00	40597	Priority Organic Pollutants	Bis(2-ethylhexyl)phthalate	2.7	U	ug/L	2.7	11
2/18/2013 9:00	40597	Priority Organic Pollutants	Fluorene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Hexachlorobenzene	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	Hexachloroethane	4	U	ug/L	4	16
2/18/2013 9:00	40597	Priority Organic Pollutants	Naphthalene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	2,6-Dinitrotoluene	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	Anthracene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Benzo(g,h,i)perylene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Bis(2-chloroethoxy)methane	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	Chrysene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Di-n-butyl phthalate	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	Di-n-octyl phthalate	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	Dibenzo(a,h)anthracene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Hexachlorocyclopentadiene	4	U	ug/L	4	16
2/18/2013 9:00	40597	Priority Organic Pollutants	2-Chlorophenol	1.3	U	ug/L	1.3	5.3

Date Sampled	Field ID	Analysis Group	Components	Result	Remark	Units	MDL	PQL
2/18/2013 9:00	40597	Priority Organic Pollutants	4-Chloro-3-methylphenol	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	Benzo(b)fluoranthene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Bis(2-chloroethyl)ether	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	Diethyl phthalate	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	Dimethyl phthalate	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	N-Nitrosodiphenylamine/ Diphenylamine	4	U	ug/L	4	16
2/18/2013 9:00	40597	Priority Organic Pollutants	2,4-Dichlorophenol	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	2,4-Dimethylphenol	13	U	ug/L	13	53
2/18/2013 9:00	40597	Priority Organic Pollutants	2,4-Dinitrophenol	20	U	ug/L	20	80
2/18/2013 9:00	40597	Priority Organic Pollutants	4-Chlorophenyl phenyl ether	2.7	U	ug/L	2.7	11
2/18/2013 9:00	40597	Priority Organic Pollutants	Benzidine	130	U	ug/L	130	530
2/18/2013 9:00	40597	Priority Organic Pollutants	Hexachlorobutadiene	4	U	ug/L	4	16
2/18/2013 9:00	40597	Priority Organic Pollutants	Phenanthrene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Acenaphthylene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Benzo(k)fluoranthene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Fluoranthene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	Isophorone	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	N-Nitrosodimethylamine	2.7	UJ	ug/L	2.7	11
2/18/2013 9:00	40597	Priority Organic Pollutants	Phenol	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	2,4-Dinitrotoluene	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	2-Chloronaphthalene	1.3	U	ug/L	1.3	5.3
2/18/2013 9:00	40597	Priority Organic Pollutants	2-Methyl-4,6-dinitrophenol	4	U	ug/L	4	16
2/18/2013 9:00	40597	Priority Organic Pollutants	Acenaphthene	0.27	U	ug/L	0.27	1.1
2/18/2013 9:00	40597	Priority Organic Pollutants	2-Nitrophenol	1.3	U	ug/L	1.3	5.3
2/18/2013 10:25	40596	Overflow	Fecal Coliforms-Membrane Filter	1	U	cfu/100 mL	1	
2/18/2013 10:25	40596	Nutrients	Ammonia-N	0.32		mg N/L	0.01	0.02
2/18/2013 10:25	40596	Field Parameter	pH	7.5				
2/18/2013 10:25	40596	Field Parameter	Dissolved Oxygen	9.85		mg/L		
2/18/2013 10:25	40596	Field Parameter	Temperature	16.64		C		
2/18/2013 10:25	40596	Field Parameter	Specific Conductance	486		umhos/cm		
2/18/2013 10:25	40596	Field Parameter	Sample Depth	0.2		m		
2/18/2013 10:30	40598	Nutrients	Ammonia-N	0.01	U	mg N/L	0.01	0.02

FDEP Biology Laboratory - Acute Bioassay Bench Sheets

Facility: FL Distillers Company - Auburndale

Address: 425 Recker Highway, Auburndale, fl. 33823

City: Auburndale **County:** POLK

Contact/District: Pete Wenner / Southwest

NPDES Permit #: FL 0003051

LIMS Job # TLH-2013-02-19-28 **LIMS Sample #:** 1484816

Lims Data Entry: 2-26-13 MF Data Entry Verification: 2-26-13 AP

Sample Collection: Date: 2-18-13 Time: ~~1000~~ 0900 MF

Hold Time Start: Date: 2-18-13 Time: 0900

Comments:

Initial sample handling:

Instructions: Check yes or no. If yes is checked, complete blanks

PH adjustment : ☐ yes ☑ no Initial pH: ____ NaOH ____ N HCl ____ N ____ Drops mL Final pH: ____

Aeration : ☑ yes ☐ no Initial DO: 10.8 mg/L Final DO: 7.5 mg/L Duration: 25 minutes Rate: ~ 100 bubbles/min

Salinity adjusted (Test 1): ☐ yes ☑ no Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine

Salinity adjusted (Test 2): ☐ yes ☑ no Initial Salinity: ____ Final Salinity: ____ Salts Hypersaline brine

Dechlorination: ☐ yes ☑ no ____mL of 0.025N Sodium Thiosulfate per liter of sample. Final TRC: ____

Sample Validation:

Instructions: Check yes or no. Fill in temperatures.

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)

Investigators' Signatures:	Initials:
Marshall Faircloth	MF
Bruce Alexander	BA
Adrienne Pennington	AP

REVIEWER: Lizy Meier

Diluent/Control Batch#:	2-4-13		2-6-13							
Water Quality Parameters	mHW CD ~~20% DMW~~	Well Water	Moderately Hard Water	Salt Water ASW NSW Test 1	Salt Water ASW NSW Test 2	Other:	Original Sample	Measured by	Verified by
Field Total Residual Cl_2 (mg/L):	N/A	N/A	N/A	N/A	N/A	N/A	Not measured		MF
Lab Total Residual Cl_2 (mg/L):	<0.01 MF 2-13		<0.01 MF 2-13				<0.01 MF	AP	AP MF
Alkalinity (mg/L as $CaCO_3$):	70	68 MF	68				141	AP	MF
Hardness (mg/L as $CaCO_3$):	85	88 MF	88				118	AP	MF
Total Ammonia (mg/L as N):	<0.017		<0.017				0.241	MF	AP MF BA
Conductivity: ☑ µmhos ☐ mmhos	317		315				541	MF/BA	
Salinity (ppth):									

V 1.8 1/13/10

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FDEP Biology Laboratory - Acute Bioassay Survival Bench Sheet

LIMS Sample # 148816 **SOP#: TA 07** 01 **Test #** 1 **of** 2

Test Species:
Batch #: 2-19-13 **Age:** <24hr
- [x] *Ceriodaphnia dubia*
- [ ] *Cyprinella leedsi*
- [ ] *Pimephales promelas*
- [ ] *Menidia beryllina*
- [ ] *Americamysis bahia*
- [ ] Other:______

Test Validation
Control Survival ≥ 90%: [x] Yes [ ] No
Temperature Range ≤ 3° C: [x] Yes [ ] No

Diluent (Batch # 2-4-13 **)**
[ ] ASW [x] MHWCD
[ ] MHW [ ] Well

Test Type: [x] Screen [ ] Definitive
[ ] Static [x] Static Renewal [ ] Flow-Through

Test Duration:
[ ] 48 hr
[x] 96 hr
[ ] __hr

Test Started:
Date 2-19-13 Time 1208

Test Ended:
Date 2-23-13 Time 0930

Chamber Size 30 **ml**
Test Volume: 20 **ml**

Concentration	Replicate	Chamber #	0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
CTL	A	1	5	5	5	5	5	5
	B	2	5	5	5	5	5	5
	C	3	5	5	5	5	5	5
	D	4	5	5	5	5	5	5
100%	A	5	5	5	5	5	5	5
	B	6	5	5	5	5	5	5
	C	7	5	5	5	5	5	5
	D	8	5	5	5	5	5	5
		Checked or Verified by:	AP	MF	MF	ML	MF	BA

Loaded/ Verified by: MF / AP
m = missing, d = dead, BR/AR Before/ After Renewal

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: Ø LC50: >100%
Calculated LC50 (Definitive) 95% CI______ Method______

Food
- [x] YCT Batch# 11-14-12
- [x] P. subcapitata Batch# 1-18-13
- [ ] Artemia Lot#______

Feeding and Artemia Batch #
- [x] 0 hr____ [x] Prior to Test
- [ ] 24 hr____
- [x] 48 hr____ [x] Prior to Renewal
- [ ] 72 hr____

Temperature Range (°C)

Incubator # 2
min. 25.1 max. 26.3 mean –

Incubator #___
min.______max.______mean______

Waterbath #___
min.______max.______mean______

Room B246
min. 24.1 max. 25.9 mean –

Light intensity (ft. candles): 50-100

Photoperiod (hours): 16 light, 8 dark

Comments:

V. 2.6 2-15-13

Substitute highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration)

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Biology Laboratory – Acute Bioassay Survival Bench Sheet

LIMS Sample # 1484816 **SOP#: TA 07** 2 **Test #** 2 **of** 2

Test Species:
Batch #: 2.19.13 Age: 7 days BA
- [ ] *Ceriodaphnia dubia*
- [ ] *Cyprinella leedsi*
- [x] *Pimephales promelas*
- [ ] *Menidia beryllina*
- [ ] *Americamysis bahia*
- [ ] Other:______

Test Validation
Control Survival ≥ 90%:
- [x] Yes
- [ ] No

Temperature Range ≤ 3° C:
- [x] Yes
- [ ] No

Diluent (Batch # 2.6.13 **)**
- [ ] ASW
- [ ] MHWCD
- [x] MHW
- [ ] Well

Test Type:
- [x] Screen
- [ ] Definitive
- [ ] Static
- [x] Static Renewal
- [ ] Flow-Through

Test Duration:
- [ ] 48 hr
- [x] 96 hr
- [ ] __hr

Test Started: Date 2.19.13 Time 12:30

Test Ended: Date 2-23-13 Time 0930

Chamber Size 1000 **ml**
Test Volume: 400 **ml**

Concentration	Replicate	Chamber #	Test Hour: 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Ctrl	A ~~B~~ BA	E13	10	10	10	10	10	10
	B	E14	10	10	10	10	10	10
100%	A	E15	10	10	10	10	10	10
	B	E16	10	10	10	10	10	10
Checked or Verified by:			94	AP	AP	AP	AP	BA

Loaded/ Verified by: BA / MF
m = missing, d = dead, BR/AR Before/ After Renewal

Test Results:
Screening Tests: Report LC50 as >100%, =100%, or <100%.
% mortality in 100% sample: 0 LC50: >100%
Calculated LC50 (Definitive) 95% CI______ Method______

Comments:

Food
- [ ] YCT Batch#______
- [ ] P. subcapitata Batch#______
- [x] Artemia Lot# 08812

Feeding and Artemia Batch #
- [x] 0 hr 31-13 [x] Prior to Test
- [ ] 24 hr____
- [x] 48 hr 32.13 [x] Prior to Renewal
- [ ] 72 hr____

Temperature Range (°C)

Incubator # 2
min 25.1 max. 26.3 mean –

Incubator #___
min.______max.______mean______

Waterbath #___
min.______max.______mean______

Room B246
min. 24.1 max. 25.9 mean –

Light intensity (ft. candles): 50-100

Photoperiod (hours): 16 light, 8 dark

V. 2.6 2-15-13

Substitute highest test concentration used if other than 100% (example: Ocean outfall tested at 30% concentration)

LIMS Sample # 484936 ~~PDEP Biology Laboratory - Biossay Parameter Sheet~~ ML

Test # 1 of 2

LDEP Biology Laboratory – Bioassay Parameter Sheet

Test Species:

☑ *Ceriodaphnia dubia* ☐ *Pimephales promelas* ☐ *Americamysis bahia*

☐ *Cyprinella leedsi* ☐ *Menidia beryllina* ☐ Other:_____

Test aerated: (if DO is < 4.0 mg/L) ☐ Yes ☑ No

Concentration	Replicate	Test Hour	pH (SU)	Temperature (°C)	Dissolved Oxygen (mg/L)	Conductivity ☑ µmhos ☐ mmhos	Salinity* (ppth)
CTL	m	0 hr	8.0	24.0	7.5	317	
	*m	24 hr		24.2			
	A	48 hr BR	8.1	24.0	7.4	337	
	m	48 hr AR	8.1	25.4	7.6	340	
	*m	72 hr		25.2			
	A	96 hr	7.3	25.5	7.4	335	
100%	m	0 hr	8.2	25.6	7.3	548	
	*m	24 hr		24.4			
	A	48 hr BR	8.1	24.4	7.5	563	
	m	48 hr AR	8.2	25.5	7.7	551	
	*m	72 hr		25.3			
	A	96 hr	7.5	25.3	7.3	536	
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					

*Measure/ record salinity for marine tests

Comments: *24 hr × 72 hour Temperature Taken from meter age. M.F 2/25/13 QF

Measured By:
0 hr: ML
24 hr: ML
48 hr BR: ML
48 hr AR: ML
72 hr: ML
96 hr: ML

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FDEP Biology Laboratory - Bioassay Parameter Sheet

LIMS Sample # 1484816 Test # 2 of 2

Test Species:

☐ *Ceriodaphnia dubia* ☑ *Pimephales promelas* ☐ *Americamysis bahia*
☐ *Cyprinella leedsi* ☐ *Menidia beryllina* ☐ Other:_____

Test aerated: (if DO is < 4.0 mg/L)
☐ Yes ☑ No

Concentration	Replicate	Test Hour	pH (SU)	Temperature (°C)	Dissolved Oxygen (mg/L)	Conductivity ☑ µmhos ☐ mmhos	Salinity* (ppth)
	A	0 hr	8.4	24.0	7.0	315	
	B	24 hr	7.6	26.2	7.1	331	
Ctrl	A	48 hr BR	7.6	25.5	7.8	339	
	A	48 hr AR	7.7	23.7	7.3	361	
	B	72 hr	7.4	26.0	7.0	323	
	A	96 hr	7.7	25.7	7.3	319	
	A	0 hr	8.4	24.0	7.5	541	
	B	24 hr	8.0	25.9	7.1	551	
100%	A	48 hr BR	8.0	25.1	7.7	528	
	A	48 hr AR	8.0	24.5	7.3	530	
	B	72 hr	7.9	25.3	6.8	504	
	A	96 hr	7.6	25.0	7.2	537	
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					
		0 hr					
		24 hr					
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					

*Measure/ record salinity for marine tests

Comments:

Measured By:
0 hr: BA
24 hr: AP
48 hr BR: AP
48 hr AR: AP
72 hr: AP
96 hr: BA

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V. 2.3 1-13-10

Test ID: Florida Distillers Co. Auburndale Dates: 2/19/13 – 2/23/13

METER / DEVICE	ID	SOP	Parameter	Method	√ used
YSI Model 58 Dissolved Oxygen Meter	90H018262	TA06_04	Dissolved Oxygen	SM 4500 O G	✓
YSI DO Probe	5905	TA06_04	Dissolved Oxygen	SM 4500 O G	✓
Accumet AR-10 pH Meter	93312105	TA06_23	pH	SM 4500 H+	✓
Mettler-Toledo SevenMulti Conductivity Meter	SN 1225117049 Probe H04257	TA06_25	Conductivity Salinity	SM 2510 B SM 2520 B	✓
Denver Model 225 ISE with ammonia probe	SN K01377	TA06_17	Ammonia	SM 4500 NH3 F	✓
Traceable Thermometer	#1-SN101686412 #2-SN221295527 #3-SN240116020 #4-SN80361795 #5-SN61990624	TA06_05	Temperature	SM-2530B modified DEP SOP-001/01 FT1400	✓ #4
Hach Pocket Colorimeter II #1	05110C042029	TA06_22	Total Residual Chlorine	EPA 330.5 SM 4500 CL G	✓
Hach Pocket Colorimeter II #2	05050C026378	TA06_22	Total Residual Chlorine	EPA 330.5 SM 4500 CL G	✓
Alkalinity (Hach Kit)	No SN	TA06_08	Alkalinity	SM 2320 B	✓
Hardness (Hach Kit)	No SN	TA06_09	Hardness	SM 2340 C	✓
OHAUS Balance 250D	1125481084	TA06_21 TA06_27	Weight	-	MF
S-Weights	BIO-S-WEIGHTS-01	NA	Balance check	-	✓ MF

SM-2530B modified to allow use of electronic and non-mercury filled thermometers.

Insert other device information in blank spaces(if used). Test ID = Facility or SRTs (acute SRT--Chronic SRT)

Entered By: AP 2-25-13

V 1.3 2/15/13 MF

9 000

PAGE

Appendix F
Standard Reference Toxicant Data

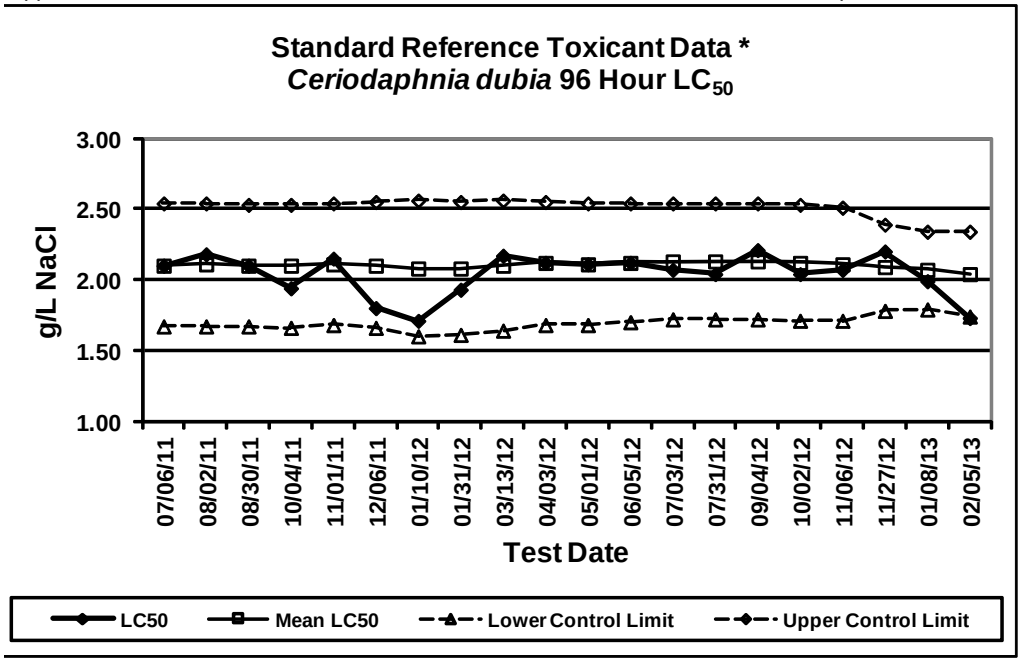
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 96-hour Acute Toxicity
Ceriodaphnia dubia (water flea) - Sodium Chloride (NaCl)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
07/06/11	2.10	2.10	0.22	1.67	2.54
08/02/11	2.18	2.11	0.22	1.67	2.54
08/30/11	2.10	2.10	0.22	1.67	2.53
10/04/11	1.94	2.10	0.22	1.66	2.53
11/01/11	2.15	2.11	0.22	1.68	2.54
12/06/11	1.80	2.10	0.22	1.66	2.55
01/10/12	1.71	2.08	0.24	1.60	2.56
01/31/12	1.93	2.08	0.24	1.61	2.55
03/13/12	2.17	2.10	0.23	1.64	2.56
04/03/12	2.12	2.12	0.22	1.68	2.55
05/01/12	2.11	2.11	0.22	1.68	2.54
06/05/12	2.12	2.12	0.21	1.70	2.54
07/03/12	2.07	2.13	0.21	1.72	2.54
07/31/12	2.04	2.13	0.20	1.72	2.54
09/04/12	2.21	2.13	0.21	1.72	2.54
10/02/12	2.04	2.12	0.20	1.71	2.53
11/06/12	2.07	2.11	0.20	1.71	2.51
11/27/12	2.20	2.09	0.15	1.78	2.39
01/08/13	1.99	2.07	0.14	1.79	2.34
02/05/13	1.73	2.04	0.15	1.74	2.34

Lower Control Limit = mean - 2 * Std Dev
Upper Control Limit = mean + 2 * Std Dev

CV = 7.27
EPA reference 75th quartile CV = 29%



FDEP Biology Laboratory - Acute SRT Bench Sheet

Method from EPA-821-R-02-012 except *H. azteca*

Test Organism: (check one)
☐ *Americamysis bahia* Method 2007.0 TA07.03 ☐ *Menidia Beryllina* Method 2006.0 TA07.04 ☐ *Hyalella azteca* Method 100.1 EPA-600-R-99-064
☑ *Ceriodaphnia dubia* Method 2002.0 TA07.01 ☐ *Cyprinella leedsi* Method 2000.0 TA07.02 ☐ *Pimephales promelas* Method 2000.0 TA07.02

Test Type: ☐ non-renewal ☑ renewal

Test Page 1 of 2

Diluent/ Batch #: 1-25-13 1 MHWCD
Toxicant/ Batch#: NaCl 12-4-13

Organism Batch: 2-5-13 **Age:** <24hrs

Test Beginning: Date: 2-5-13 Time: 0945
Test Ending: Date: 2-9-13 Time: 10:00

Water Quality Parameters:	Diluent	SOP	Initials
Total Residual Cl_2 (mg/L):	<0.03	TA06_22	AP
Alkalinity (mg/L as $CaCO_3$):	76	TA06_08	HW
Hardness (mg.L as $CaCO_3$):	89	TA06_09	HW
Total Ammonia (mg/L as N):	<0.017	TA06_17	MF
Conductivity: (µmhos) mmhos	316	TA06_25	MF
Salinity (ppth):		TA06_25	

Food:	Batch
☑ YCT	11-14-12
☑ *P. subcapitata*	1-18-13
☐ Artemia Lot #	Artemia Batch:
	0 hr:
	24 hr:
	48 hr:
	72 hr:

Chamber size: 30 mL
Test volume: 20 mL per replicate

Concentrations prepared by: MF
Temperature Range °C:(if used)
Test Incubated in: Incubator # 3 Waterbath # ___ Incubator # 3 min. 26.3 max. 28.1 mean. --
Light Intensity: 50-100 Ft. candles Waterbath # ___ min.____ max.____ mean.____
Photoperiod: 16 hours Light / 8 hours dark Room B246 min. 24.9 max. 25.7 mean. --

Feeding: √ as needed
☑ Before test
☐ 24 hr
☑ 48 hr
☐ 72 hr

all species 2 hrs prior to test
mysids daily
all species except *H. azteca* 2 hr prior to renewal
H. azteca 0 hr and 48 hr

H. azteca		
0 hr	Alk	Hrd
Well		
100%		
96 hr	Alk	Hrd
Well		
100%		

Concentration µg/L mg/L g/L	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Control	A	1	5	5	5	5	5	5
	B	2	5	5	5	5	5	5
	C	3	5	5	5	5	5	5
	D	4	5	5	5	5	5	5
1.5	A	5	5	5	5	5	5	4 1D
	B	6	5	5	5	5	5	5
	C	7	5	5	4 1D	4	4	3 1D
	D	8	5	5	5	5	5	0 5D
2.0	A	9	5	5	4 1D	4	3 1D	3
	B	10	5	5	4 1D	4	2 2D	2
	C	11	5	5	5	5	1 4D	1
	D	12	5	5	3 2D	3	3	2 1D
2.5	A	13	5	mF5 1 4D	0 1D			
	B	14	5	mF3 1 4D	0 1D			
	C	15	5	mF3 2 3D	0 2D			
	D	16	5	mF2 3D	0 2D			
3.0	A	17	5	mF0 5D				
	B	18	5	mF0 5D				
	C	19	5	mF0 5D				
	D	20	5	mF0 5D				
4.0	A	21	5	mF0 5D				
	B	22	5	mF0 5D				
	C	23	5	mF0 5D				
	D	24	5	mF0 5D				
Organisms loaded by: MF		Checked by:	MF	MF	MF	MF	MF	BA

Loading Verified by: AP AR = after renewal
m = missing d = dead BR = before renewal hr = hour

Investigators' Signatures
Marshael Faircloth
Adrienne Pennington
Bryce Abud
Hans Wilke

Reviewer: Elizabeth Hall

Comments:

Method: TSK

Statistics: LC50	95% confidence intervals Lower	Upper
48 hour:	—	—
96 hour: 1.73	1.39	2.16

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Revised 7/15/2008 mf

FDEP Biology Laboratory - Acute SRT Bench Sheet
0-96 hour parameters

Methods from EPA-821-R-02-012 except *H. azteca*

Test Page ___2___ of ___2___

Test Organism: (check one)
- ☐ *Americamysis bahia* Method 2007.0 TA07.03
- ☐ *Menidia Beryllina* Method 2006.0 TA07.04
- ☐ *Hyalella azteca* Method 100.1 EPA-600-R-99-064
- ☑ *Ceriodaphnia dubia* Method 2002.0 TA07.01
- ☐ *Cyprinella leedsi* Method 2000.0 TA07.02
- ☐ *Pimephales promelas* Method 2000.0 TA07.02

Test Beginning: Date: 2-5-13 Time: 0945
Test Ending: Date: 2-9-13 Time: 10:00

Test Type: ☐ non-renewal ☑ renewal

hr = hour AR = after renewal BR = before renewal

Concentration µg/L mg/L g/L	Replicate	Test Hour	pH (SU)	Temperature (° C)	Dissolved Oxygen (mg/L)	Conductivity ☑ µmhos ☐ mmhos	Salinity (ppth)
Control	M	0 hr	8.2	24.6	7.7	316	
	—	24 hr	—	—	—	—	
	A	48 hr BR	8.1	24.5	8.3	334	
	M	48 hr AR	8.0	24.7	8.4	309	
	—	72 hr	—	—	—	—	
	A	96 hr	7.6	25.1	6.8	322	
1.5	M	0 hr	8.0	25.2	7.4	3340	
	—	24 hr	—	—	—	—	
	A	48 hr BR	8.0	24.7	8.3	3420	
	M	48 hr AR	8.0	24.8	8.3	3230	
	—	72 hr	—	—	—	—	
	A	96 hr	7.6	25.0	7.1	3610	
2.0	M	0 hr	8.0	25.4	7.5	4310	
	—	24 hr	—	—	—	—	
	A	48 hr BR	8.0	24.8	8.2	4380	
	M	48 hr AR	8.1	24.9	8.2	4166	
	—	72 hr	—	—	—	—	
	A	96 hr	7.6	24.8	7.2	4550	
2.5	M	0 hr	8.0	25.3	7.5	5270	
	—	24 hr	—	—	—	—	
	A	48 hr BR	8.1	24.8	8.2	5400	
		48 hr AR					
		72 hr					
		96 hr					
3.0	M	0 hr	8.0	25.1	7.5	6060	
	A	24 hr	8.0	24.9	7.6	6250	
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					
4.0	M	0 hr	8.0	25.0	7.5	7950	
	A	24 hr	8.0	24.8	7.6	8100	
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					

Investigators Signatures
Marshall Faircloth
Maureen Pennington
Brian Abbott
Hans Wirth

Reviewed By: Liz Miller

Measured by:
0 hr: MV
24 hr: MF
48 hr BR: MF
48 hr AR: MF
72 hr: BA
96 hr: BA

Measure/record salinity for marine tests

Comments:

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Revised 07/15/2008 MF

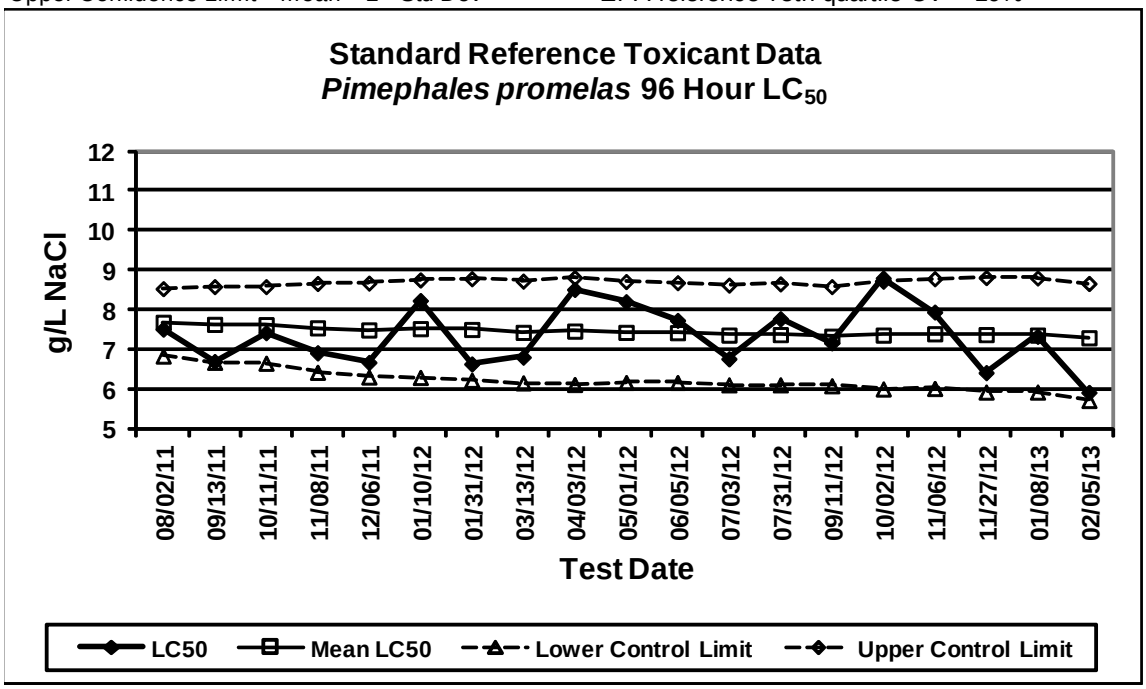
Florida Department of Environmental Protection
Bureau of Laboratories

Standard Reference Toxicant (SRT) Test Data - 96-hour Acute Toxicity
Pimephales promelas (fathead minnow) - Sodium Chloride (NaCl)

Date	LC50	Mean LC50	Std Dev	Lower Control Limit	Upper Control Limit
07/06/11	7.35	7.7	0.43	6.84	8.56
08/02/11	7.51	7.68	0.43	6.83	8.53
09/13/11	6.69	7.63	0.48	6.67	8.58
10/11/11	7.42	7.62	0.48	6.65	8.58
11/08/11	6.91	7.54	0.56	6.42	8.66
12/06/11	6.67	7.49	0.59	6.3	8.67
01/10/12	8.23	7.52	0.61	6.29	8.75
01/31/12	6.63	7.5	0.64	6.22	8.78
03/13/12	6.80	7.43	0.64	6.15	8.72
04/03/12	8.51	7.46	0.68	6.11	8.81
05/01/12	8.20	7.43	0.64	6.16	8.71
06/05/12	7.73	7.42	0.63	6.16	8.68
07/03/12	6.76	7.36	0.63	6.1	8.62
07/31/12	7.77	7.37	0.64	6.1	8.65
09/11/12	7.16	7.33	0.62	6.08	8.58
10/02/12	8.80	7.36	0.68	6	8.72
11/06/12	7.94	7.39	0.69	6.01	8.78
11/27/12	6.41	7.37	0.72	5.92	8.81
01/08/13	7.33	7.36	0.72	5.92	8.8
02/05/13	5.91	7.29	0.79	5.71	8.66

Lower Confidence Limit = mean - 2 * Std Dev
Upper Confidence Limit = mean + 2 * Std Dev

CV = 10.83
EPA reference 75th quartile CV = 19%



FDEP Biology Laboratory - Acute SRT Bench Sheet

Method from EPA-821-R-02-012 except *H. azteca*

Test Organism: (check one)
☐ *Americamysis bahia* Method 2007.0 TA07.03 ☐ *Menidia Beryllina* Method 2006.0 TA07.04 ☐ *Hyalella azteca* Method 100.1 EPA-600-R-99-064
☐ *Ceriodaphnia dubia* Method 2002.0 TA07.01 ☐ *Cyprinella leedsi* Method 2000.0 TA07.02 ☒ *Pimephales promelas* Method 2000.0 TA07.02

Test Type: ☐ non-renewal ☒ renewal
Test Page 1 of 2

Diluent/ Batch #: MHW 12-1-13
Toxicant/ Batch#: NaCl 12-5-13
Organism Batch: 2-5-13 Age: 7 dy
Test Beginning: Date: 2-5-13 Time: 1300
Test Ending: Date: 2-9-13 Time: 9:30

Water Quality Parameters:	Diluent	SOP	Initials
Total Residual Cl_2 (mg/L):	<0.03	TA06_22	BA
Alkalinity (mg/L as $CaCO_3$):	74	TA06_08	AP
Hardness (mg.L as $CaCO_3$):	84	TA06_09	AP
Total Ammonia (mg/L as N):	0.017	TA06_17	MF
Conductivity: (µmhos) mmhos	293	TA06_25	AP
Salinity (ppth):		TA06_25	

Food:	Batch
☐ YCT	
☐ *P. subcapitata*	
☒ Artemia Lot #	08812

Artemia Batch:
0 hr: 22-13
24 hr:
48 hr: 24-13
72 hr:

Chamber size: 100 mL
Test volume: 400 mL per replicate

Concentrations prepared by: BA
Test Incubated in: Incubator # 2 Waterbath # ____
Light Intensity: 50-100 Ft. candles
Photoperiod: 16 hours Light / 8 hours dark

Temperature Range °C:(if used)
Incubator # 2 min. 25.3 max. 26.3 mean —
Waterbath # ___ min. ___ max. ___ mean ___
Room B246 min. 24.9 max. 25.7 mean —

Feeding: √ as needed
☒ Before test
☐ 24 hr
☒ 48 hr
☐ 72 hr

all species 2 hrs prior to test
mysids daily
all species except *H. azteca* 2 hr prior to renewal

H. azteca 0 hr and 48 hr

H. azteca		
0 hr	Alk	Hrd
Well		
100%		
96 hr	Alk	Hrd
Well		
100%		

Concentration µg/L mg/L g/L	Replicate	Chamber #	Test Hour 0 hr	24 hr	48 hr BR	48 hr AR	72 hr	96 hr
Control	A	E13	10	10	9 11D	9	9	9
	B	E14	10	10	10	10	10	10
5	A	E15	10	10	10	10	10	10
	B	E16	10	10	10	10	10	10
6	A	E17	10	10	8 2D	8	5 3D	5
	B	E18	10	10	7 3D	7	3 4D	3
7	A	E19	10	10	3 7D	3	1 2D	1
	B	E20	10	7 3D.	2 5D	2	0 2D	
	AMF							
8	A	E21	10	3 7D	0 3D			
	B	E22	10	2 8D	0 2D			
10	A	E23	10	0 10D				
	B	E24	10	0 10D				
Organisms loaded by: AP		Checked by:	BA	BA	BA	AP	BA	AP

Loading Verified by: BA AR = after renewal
m = missing d = dead BR = before renewal hr = hour

Investigators' Signatures
Marshall Faircloth
Adrienne Pennington
Bruce Alred
Jackie Savage
Reviewer: Reg Mallard

Comments:

Method: TSK

Statistics: LC50		95% confidence intervals Lower	Upper
48 hour:	—	—	—
96 hour:	5.91	5.68	6.15

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Revised 7/15/2008 mf

FDEP Biology Laboratory - Acute SRT Bench Sheet
0-96 hour parameters

Methods from EPA-821-R-02-012 except *H. azteca*

Test Page 2 of 2

Test Organism: (check one)
- ☐ *Americamysis bahia* Method 2007.0 TA07.03
- ☐ *Menidia Beryllina* Method 2006.0 TA07.04
- ☐ *Hyalella azteca* Method 100.1 EPA-600-R-99-064
- ☐ *Ceriodaphnia dubia* Method 2002.0 TA07.01
- ☐ *Cyprinella leedsi* Method 2000.0 TA07.02
- ☑ *Pimephales promelas* Method 2000.0 TA07.02

Test Beginning: Date: 2-5-13 Time: 1300
Test Ending: Date: 2-9-13 Time: 9:30

Test Type: ☐ non-renewal ☑ renewal

hr = hour AR = after renewal BR = before renewal

Concentration µg/L mg/L g/L	Replicate	Test Hour	pH (SU)	Temperature (°C)	Dissolved Oxygen (mg/L)	Conductivity ☐ µmhos ☑ mmhos	Salinity (ppth)
Control	A	0 hr	7.8	24.3	7.8	0.293	
	B	24 hr	7.7	24.1	7.6	0.326	
	A	48 hr BR	7.8	25.0	8.1	0.323	
	A	48 hr AR	7.8	24.8	6.6	0.307	
	B	72 hr	7.6	24.8	7.5	0.301	
	A	96 hr	7.8	25.0	8.0	0.333	
5	A	0 hr	7.8	24.5	7.9	8.90	
	B	24 hr	7.7	24.7	~~6.8~~ AP 7.6	9.06	
	A	48 hr BR	7.9	25.4	7.8	9.61	
	A	48 hr AR	7.7	24.7	6.8	9.19	
	B	72 hr	7.7	24.4	6.9	8.91	
	A	96 hr	7.8	25.2	7.4	9.61	
6	A	0 hr	7.9	24.6	7.8	10.4	
	B	24 hr	7.8	24.6	~~6.8~~ AP 7.6	10.8	
	A	48 hr BR	7.9	25.2	7.8	10.9	
	A	48 hr AR	7.7	24.8	7.1	10.6	
	B	72 hr	7.7	24.8	6.9	10.6	
	A	96 hr	7.8	25.3	7.5	11.3	
7	A	0 hr	7.9	24.6	7.7	12.0	
	B	24 hr	7.8	25.1	7.4	12.3	
	A	48 hr BR	7.9	24.9	7.9	12.7	
	A	48 hr AR	7.7	24.8	7.4	12.3	
	B	72 hr	7.7	24.5	7.0	12.2	
	A	96 hr	7.7	25.1	7.2	12.8	
8	A	0 hr	7.9	24.6	7.7	13.8	
	B	24 hr	7.8	25.1	7.5	14.1	
	A	48 hr BR	7.8	24.8	7.9	14.4	
		48 hr AR					
		72 hr					
		96 hr					
10	A	0 hr	7.9	24.6	7.7	17.2	
	B	24 hr	7.8	24.8	7.5	17.4	
		48 hr BR					
		48 hr AR					
		72 hr					
		96 hr					

Investigators Signatures
Marshall Faircloth
Adrienne Pennington
Jackie Savage

Reviewed By: Liz Miller

Measured by:
0 hr: AP
24 hr: AP
48 hr BR: AP
48 hr AR: BA
72 hr: BA/AP
96 hr: 9K

Measure/record salinity for marine tests

Comments:

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Revised 07/15/2008 MF

Appendix G
Organism Receipts

MARINCO BIOASSAY LABORATORY
The Aquatic Toxicology Specialists

NELAP Certification # E84191

Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Shipping Date: 2/4/13

Ship to: FDEP

P.O. No: _____

Species	Quantity	Age	Brood/Lot Number	Temp. (°C)	pH (S.U.)	Salinity (‰)
Mysidopsis bahia						
Menidia beryllina						
						Hardness mg/L
Cyprinella leedsi	150 ac	11 days	CL 130124	25	7.8	80
Pimephales promelas	300	< 24 HRS	FM 130209-1645	25	7.8	80
	150 ac	7 days	FM 130128	25	7.8	80
Ceriodaphnia dubia						
Daphnia magna						
YCT						
P. subcapitata						

Packed by: PM

Shipped Via: Fed Ex

Notes: _____

Thank you for your order.

4569 Samuel Street · Sarasota, FL 34233 · Tel: 941-925-3594 · Fax: 941-922-3874 · Web: www.biologylab.com

MARINCO BIOASSAY LABORATORY
The Aquatic Toxicology Specialists

NELAP Certification # E84191

Shipment Record

State of Florida Aquaculture Certificate Number AQ0668007

Shipping Date: 2/18/13

Ship to: FDEP

P.O. No: _____

Species	Quantity	Age	Brood/Lot Number	Temp. (°C)	pH (S.U.)	Salinity (‰)
Mysidopsis bahia						
Menidia beryllina						
						Hardness mg/L
Cyprinella leedsi	300 ac	11 days	CL1302 07	25	7.8	80
Pimephales promelas	100 ac	7 days	FM1302 11	25	7.8	80
Ceriodaphnia dubia						
Daphnia magna						
YCT						
P. subcapitata						

Packed by: PM

Shipped Via: Fed Ex

Notes: _____

Thank you for your order.

4569 Samuel Street · Sarasota, FL 34233 · Tel: 941-925-3594 · Fax: 941-922-3874 · Web: www.biologylab.com

EPA End Sheet

The Bioassay of Florida Distillers Company - Auburndale effluent sampled on February 18, 2013. NPDES #FL0003051.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 FL0003051 11	12 130218	18 B	19 S	20 2

Remarks

66

The Priority Pollutants Analysis of Florida Distillers Company - Auburndale effluent sampled on February 18, 2013. NPDES #FL0003051.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 FL0003051 11	12 130218	18 X	19 S	20 2

Remarks

66

Biological Analyses of Florida Distillers Company - Auburndale effluent sampled on February 18, 2013. NPDES #FL0003051.

Fill Out This Section For All Surface Water Discharger Inspections(CEI, CSI, CBI, PAI, XSI-RI Optional)

Transaction Code	NPDES NUMBER	YR/MO/DA	Insp Type	Inspector	Fac Type
1 N 2 5	3 FL0003051 11	12 130218	18 S	19 S	20 2

Remarks

66