

Bioassays of

Stone Container Paper Mill

Jacksonville, Duval County, Florida

NPDES #FL0000400

Sampled 2/14/00

November 2000

Biology Section

Division of Resource Assessment & Management

Comprehensive Quality Assurance Plan #870346G

Bioassays of

Stone Container Paper Mill

Jacksonville, Duval County, Florida

NPDES #FL0000400

Biology Section
Bureau of Laboratories
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Introduction

Stone Container Paper Mill, 9469 Eastport Road, Jacksonville, Duval County, Florida, NPDES #FL0000400, tests performed on 15 to 17 February 2000.

This papermill produces paper products using pulp derived from recycled paper products and purchased bleach pulp. The facility's wastewater treatment system has a design flow of 20 MGD and a mean flow of 8 MGD. Wastewater treatment consists of grit removal, primary clarification, aeration in two 3.5-acre unlined ponds, and one 60-acre unlined aeration stabilization basin. Treated wastewater is discharged into the St. John's River (facility summary provided by John Baxter, FDEP, Jacksonville).

The toxicity tests discussed in this report were performed in accordance with methods described by Weber, 1993, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, 4th Edition, EPA/600/4-90/027F.

Results and Discussion

The FDEP Biology Section performed four 48-hour static acute screening toxicity bioassays on a sample of effluent from the Stone Container Facility. Two tests were performed using the saltwater test species, the mysid shrimp, *Americamysis bahia* and the inland silverside minnow, *Menidia beryllina*. Two additional tests were performed using the freshwater test species, the bannerfin shinner, *Cyprinella leedsi*, and the water flea, *Ceriodaphnia dubia*. The salinity of an aliquot of the sample was adjusted to 17 ppt using 40 Fathoms® artificial sea salts for the saltwater species tests. Neither the freshwater nor the saltwater tests showed toxicity to any of the test organisms within the 48-hour test period (Tables 1 and 2).

Prior to test initiation the sample was aerated for approximately 75 minutes to increase the dissolved oxygen (DO) concentrations from the initial reading of 1.0 mg/L (4.0 mg/L minimum DO concentration allowed for test acceptance). The DO concentration after aeration was 5.1 mg/L.

Total residual chlorine and total ammonia of the effluent were less than the detection limits in the laboratory (0.03 mg/L and 0.017 mg/L as N, respectively). Further chemical analyses were performed on the sample and several metals, a pesticide, an organic compound, and oil and grease were identified (Table 3).

Conclusion

The sample of effluent collected from this facility on February 14, 2000, did not show toxicity.

Table1. Data recorded during the 48-hour acute screening bioassays of a sample of effluent from Stone Container, 9469 Eastport Road, Jacksonville, Duval County, Florida, NPDES# FL0000400, performed on 15 to17 February 2000 with fresh water species.

Facility:	**Stone Container**			**NPDES #**	**FL0000400**	Facility Type:	**Paper Mill**
Location:	9469 Eastport Road			Contact/District:	John Baxter/ NE-Dist		
County:	Duval			Test type:	static acute screen		
Sample Collection Date:	2/14/00	Time:	1200	# tests:	2	Receiving Water:	St. John's River
Test Beginning Date:	2/15/00	Time:	1530	Chlorination Type:	Not Chlorinated		
Test Ending Date:	2/17/00	Time:					**Page 1 of 1**

Total Residual CL2	mg/L	Method
Field:	not measured	
Lab:	<0.03	DR-100

Ammonia	Total (mg/L)	Unionized (mg/L)
Control Water (fish):	< 0.017	<0.017
20% Dilute Mineral Water (cladocerans):	< 0.017	<0.017
100% Sample:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control Water (fish):	128	120
20% Dilute Mineral Water (cladocerans):	80	77
100% Sample:	279	454

Salinity[C]	(ppt)
Control Water:	<1
100% Sample:	~1

[C] Salinity based on conductivity and temperature measurements.

Organism: ***Ceriodaphnia dubia*** Life stage: < 24 hours old

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/20	5	5	5	8.2	-	8.4	24.0	-	24.5	8.1	-	8.6	180	190
Control B	0/20	5	5	5	-	-	8.4	-	-	24.5	-	-	8.6	-	200
Control C	0/20	5	5	5	-	-	8.5	-	-	24.5	-	-	8.6	-	200
Control D	0/20	5	5	5	-	-	8.5	-	-	24.6	-	-	8.6	-	210
100% A	20/0	5	5	5	8.0	-	8.7	24.0	-	24.5	4.9	-	7.2	2030	2520
100% B	20/0	5	5	5	-	-	8.6	-	-	24.7	-	-	7.2	-	2570
100% C	20/0	5	5	5	-	-	8.6	-	-	24.7	-	-	6.7	-	2580
100% D	20/0	5	5	5	-	-	8.6	-	-	24.7	-	-	6.7	-	2810

[A] Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 24.0-26.0°C.
Incubator #2 temperature range for the test period was 25.5-26.5°C.

Organism: ***Cyprinella leedsi*** Age: 14 days

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity Uncorrected µmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	5	5	5	8.0	8.5	8.6	24.4	25.0	25.7	7.9	8.4	8.4	250	300
Control B	0/500	5	5	5	8.0	8.5	8.6	24.4	24.7	25.6	7.9	8.4	8.4	250	280
Control C	0/500	5	5	5	8.0	8.5	8.6	24.4	24.7	25.2	7.9	8.6	8.7	250	275
Control D	0/500	5	5	5	8.0	8.5	8.6	24.4	24.7	24.9	7.9	8.6	8.7	250	285
100% A	500/0	5	5	5	8.0	8.4	8.7	24.2	24.8	25.3	5.3	8.4	7.2	2070	2390
100% B	500/0	5	5	5	8.0	8.4	8.7	24.3	25.2	25.5	5.3	7.6	7.3	2150	2410
100% C	500/0	5	5	5	8.0	8.5	8.6	24.4	25.5	25.5	5.1	7.5	7.1	2150	2380
100% D	500/0	5	5	5	8.0	8.5	8.7	24.4	25.6	25.3	5.1	7.5	7.1	2120	2400

B Temperatures of room and test incubator were continuously recorded on a strip chart recorder.
Room Temperature range for the test period was 24.0-26.0°C.
Incubator #3 temperature range for the test period was 23.5-26.0°C.

Table 2. Data recorded during the 48-hour acute screening bioassays of a sample of effluent from the Stone Container WWTF, 9469 Eastport Road, Jacksonville, Duval County, Florida, NPDES# FL0000400, performed on 15 to17 February 2000 with the salt water species.

Facility:	Stone Container		NPDES #	FL0000400	Facility Type: Paper Mill
Location:	9469 Eastport Road		Contact/District:	John Baxter/ NE-Dist	
County:	Duval		Test type:	static acute screen	
Sample Collection Date:	2/13/96	Time: 1200	# tests:	2	Receiving Water: St. John's River
Test Beginning Date:	2/14/96	Time: 1530	Chlorination Type:	Not Chlorinated	
Test Ending Date:	2/16/96	Time:			Page 1 of 1

Total Residual CL2	mg/L	Method
Field:	-	-
Lab:	<0.03	DR-100

Ammonia	Total (mg/L)	Unionized (mg/L)
Control Water :	<0.017	<0.017
100% Sample:	<0.017	<0.017

Alk & Hardness	Alkalinity (mg/L)	Hardness (mg/L)
Control Water (fish):	189	-
Control water (mysids):	189	-
100% Adjusted Sample:	-	-

Salinity[C]	(ppt)
Control Water (fish):	20.0
Control water (mysids):	20.0
100% Sample:	<1
Salinity adjusted sample:	17.0

[C] Salinity based on a combination of conductivity and temperature.

Organism: ***Menidia beryllina*** Age: 12 days

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[A]			Dissolved Oxygen			Conductivity mmhos/cm	
Concentrations	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	5	5	5	8.5	8.4	8.5	24.3	23.8	24.4	7.0	7.9	7.7	27.1	30.3
Control B	0/500	5	5	5	8.5	8.4	8.5	24.3	23.8	24.2	7.0	7.9	7.7	27.5	29.8
Control C	0/500	5	5	5	8.5	8.4	8.5	24.2	23.9	25.9	7.0	7.8	7.6	27.6	31.8
Control D	0/500	5	5	5	8.5	8.4	8.5	24.2	24.0	24.7	7.1	7.8	7.6	27.5	29.7
100% A	500/0	5	5	5	8.0	8.5	8.6	24.2	23.7	25.0	5.1	7.7	7.1	29.3	32.7
100% B	500/0	5	5	5	8.0	8.5	8.6	24.2	23.6	24.3	5.1	7.8	7.3	29.4	32.0
100% C	500/0	5	5	5	8.0	8.5	8.6	24.2	23.8	25.7	5.1	7.7	6.9	29.4	32.1
100% D	500/0	5	5	5	8.0	8.5	8.6	24.2	23.9	26.5	5.1	7.6	6.5	29.3	35.2

[A] Temperatures of test incubator and test room were continously recorded on strip chart recorders.
Incubator #3 temperature range for the test period was 23.5-26.0 °C.
Room temperature range for the test period was 24.0-26.0°C.

Organism: ***Americamysis bahia*** Age: 3 days

	Sample/Diluent	SURVIVAL # Alive			pH			Temperature[B]			Dissolved Oxygen			Conductivity mmhos/cm	
Concentration	Volume(mL)	0 hr	24 hr	48 hr	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	24 hour	48 hour	0 hour	48 hour
Control A	0/500	5	5	5	8.5	8.4	8.5	24.0	24.5	24.1	7.1	7.6	7.8	27.3	29.4
Control B	0/500	5	5	5	8.5	8.4	8.5	24.0	24.5	24.0	7.1	7.6	7.8	27.6	30.4
Control C	0/500	5	5	5	8.5	8.4	8.5	24.1	24.3	24.3	7.1	7.6	7.8	27.6	30.6
Control D	0/500	5	5	5	8.5	8.4	8.5	24.1	23.7	24.1	7.1	7.7	7.8	27.5	31.8
100% A	500/0	5	5	5	8.0	8.4	8.7	24.1	23.6	23.7	5.0	7.9	7.6	29.4	31.8
100% B	500/0	5	5	5	8.0	8.5	8.7	24.1	23.7	24.4	5.0	7.7	7.5	29.3	32.7
100% C	500/0	5	5	5	8.0	8.5	8.7	24.1	25.4	24.2	5.0	7.9	7.6	29.3	31.4
100% D	500/0	5	5	5	8.0	8.5	8.7	24.1	25.5	23.5	5.0	7.6	7.6	29.3	32.6

[B] Temperatures of test incubator and test room were continously recorded on strip chart recorders.
Incubator #3 temperature range for the test period was 23.5-26.0°C.
Room temperature range for the test period was 24.0-26.0°C.

Table 3. Results of chemical analyses on the effluent from the Stone Container Paper Mill sampled on February 14, 2000.

Metals			
Aluminum	850	µg/L	
Calcium	152	mg/L	
Chromium	2.3	µg/L	I
Copper	6.5	µg/L	J
Iron	289	µg/L	
Lead	0.4	µg/L	I
Magnesium	25.9	mg/L	
Nickel	4.9	µg/L	I
Pesticides and Herbicides			
Atrazine	0.3	µg/L	
Base, Neutral, & Acid Extractable Organics			
Isophorone	2	ug/L	I
Oil and Grease			
Oil and Grease	5	mg/L	K

J Estimated value

I Value reported is less than the minimum quantitation limit and greater than or equal to the minimum detection limit.

K Actual value is known to be less than value given.

FDEP Biology Section — Acute Bioassay Bench Sheet

1200 1230 Begin (SG) 1245 End 1330 End (SG)

Sample Source: Stone
County: Duval
Contact / District: John Baxter / NE-DIST
NPDES Permit #: FL0000400
LIMS Sample #: 434343 LIMS Job #: TLH 2000-02-15-10-01
sample log
Test Type: (Screening) / Definitive
(Static) / Static Renewal / Flow-through
Test Number: 1 of 4

Sample Collection: Date 2/14/00 Time 1530
Test Beginning: Date 2/15/00 Time 1520
Test Ending: Date 2/19/00 Time 1520
Organism Batch #: 8 Diluent Batch #: DMW #4
Organism Age: 24 hrs. SRT toxicant batch #: N/A
Test organism: Cyprinella leedsi (SG) C. dubia

Remarks: The initial sample DO was 1.0 mg/L. Sample aerated for 1 hour 15 minutes. DO was 5.1 mg/L when test was loaded. MF 2/15/00

2/25/00 DPH LC50 > 100%

Conc.	Chamber #	Number Live 0 hr	24 h	48 h	pH 0 hr	24 h	48 h	Temperature (°C) 0 hr	24 h	48 h	D.O. (mg/L) 0 hr	24 h	48 h	UNCORRECTED Cond. (mmhos/cm) Cond. (µmhos/cm) 0 hr	24 h	48 h
Cont.	A	5	5	5	8.2	—	8.4	24.0	—	24.5	8.1	—	8.6	180	—	190
	B	5	5	5	—	—	8.4	—	—	24.5	—	—	8.6	—	—	200
	C	5	5	5	—	—	8.5	—	—	24.5	—	—	8.6	—	—	200
	D	5	5	5	—	—	8.5	—	—	24.6	—	—	8.6	—	—	210
100%	A	5	5	5	8.0	—	8.7	24.0	—	24.5	4.9	—	7.2	2030	—	2520
	B	5	5	5	—	—	8.6	—	—	24.7	—	—	7.2	—	—	2570
	C	5	5	5	—	—	8.6	—	—	24.7	—	—	6.7	—	—	2580
	D	5	5	5	—	—	8.6	—	—	24.7	—	—	6.7	—	—	2810
measured by:		DPH	DPH	MF	MF	—	SG	MF	—	SG	MF	—	SG	MF	—	SG
recorded by:		SG	DPH	DPH	SG	—	DPH	SG	—	DPH	SG	—	DPH	SG	—	DPH

Investigators' Signatures
Lillian Anderson
Shannon Gerard
Marshall Faircloth

Temperature Range °C
Incubator # 2 25.5° – 26.5°C
Room B246 24.0° – 26.0°C

Water Quality Parameters	Salt Water / Well Water	20% Min Water	Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):			N/A	N/A	N/A	SG
Lab Total Residual Cl2 (mg/L):		<0.03	<0.03	DR100	DPH	SG
Alkalinity (mg/L as $CaCO_3$):		80	279	Hach	SG	SG
Hardness (mg/L as $CaCO_3$):		77	454	Hach	SG	SG
Total ammonia (mg/L as N):		<0.017	<0.017	Denver	DPH	SG
Salinity:		0	≈1	YSI	SG	SG

Jeff Wolfe
reviewer

form updated 3/3/99

FDEP Biology Section — Acute Bioassay Bench Sheet

Sample Source: Stone
County: DUVAL
Contact / District: John Baxter / NE-DIST
NPDES Permit #: FL0000400
LIMS Sample #: 434363 LIMS Job #: TLH2000-02-15-ID-01

Sample Collection: Date 2/04/00 Time 1200
Test Beginning: Date 2/15/00 Time 1530
Test Ending: Date 2/17/00 Time 1520
Organism Batch #: 9 Diluent Batch #: Well
Organism Age: 14 days SRT toxicant batch #: N/A

sample log
Test Type: (Screening) I Definitive
(Static) I Static Renewal I Flow-through
Test Number: 2 of 4

Test organism: C. reedsi

Remarks:
* Aeration for 1:15 hrs. due to low DO. 2/25/00 DPH LC50 7.00%
* fish @ surface shortly after loading.
Initial DO was 1.0 mg/L. DO at loading was 5.1 mg/L. aeration started

Conc.	Chamber #	Number Live 0 hr	24 h	48 h	pH 0 hr	24 h	48 h	Temperature (°C) 0 hr	24 h	48 h	D.O. (mg/L) 0 hr	24 h	48 h	UNCORRECTED Cond. (mmhos/cm) Cond. (µmhos/cm) 0 hr	24 h	48 h	
Cont. A	E1	5	5	5	8.0	8.5	8.6	24.4	25.0	25.7	7.9	8.4	8.4	250	260	~~270~~	300
B	E2	5	5	5	8.0	8.5	8.6	24.4	24.7	25.6	7.9	8.4	8.4	250	260	~~270~~	280
C	E3	5	5	5	8.0	8.5	8.6	24.4	24.7	25.2	7.9	8.6	8.7	250	260	~~270~~	275
D	E4	5	5	5	8.0	8.5	8.6	24.4	24.7	24.9	7.9	8.6	8.7	250	270	~~270~~	285
100% A	E5	5	5	5	8.0	8.4	8.7	24.2	24.8	~~25.3~~	5.3	8.4	7.2	2070	1990	~~646~~	2390
B	E6	5	5	5	8.0	8.4	8.7	24.3	25.2	~~25.5~~	5.3	7.6	7.3	2150	2100	~~645~~	2410
C	E7	5	5	5	8.0	8.5	8.6	24.4	25.5	~~25.5~~	5.1	7.5	7.1	2150	2250	~~650~~	2380
D	E8	5	5	5	8.0	8.5	8.7	24.4	25.6	25.3	5.1	7.5	7.1	2120	2260	~~655~~	2400
measured by:		DPH	MF	MF	MF	DPH	SG	MF	DPH	SG	MF	DPH	SG	MF	DPH	SG	
recorded by:		MF	MF	DPH	SG	SG	DPH	SG	SG	DPH	SG	SG	DPH	SG	SG	DPH	

Investigators' Signatures
Shannon Gerard
Marshall Faircloth
A H Wolfe
reviewer

form updated 3/3/99

Temperature Range °C
Incubator # 3 23.5-24.0°C
Room B246 24.0-26.0°C

Salt Water / Well Water

Water Quality Parameters	20% Min Water	Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):	[redacted]	N/A	N/A	N/A	SG
Lab Total Residual Cl2 (mg/L):	<0.03	<0.03	DPH	DPH	SG
Alkalinity (mg/L as $CaCO_3$):	128	279	Hach	MF	SG
Hardness (mg/L as $CaCO_3$):	120	454	Hach	SG	SG
Total ammonia (mg/L as N):	<0.017	<0.017	Hach	~~DPH~~	SG
Salinity:	0	≈ 1 ppt	YSI	SG	SG

FDEP Biology Section — Acute Bioassay Bench Sheet

Sample Source: Stone (salt adjusted) → 20‰
County: DUVAL
Contact / District: John Baxter / NE-DIST
NPDES Permit #: FL0000400
LIMS Sample #: 434363 LIMS Job #: TLH 2000-02-15-10-01

Sample Collection: Date 2/14/00 Time 1200
Test Beginning: Date 2/15/00 Time 1530
Test Ending: Date 2/17/00 Time 1550
Organism Batch #: #43/#5 Diluent Batch #: ASW #7
Organism Age: 3 days/12 days SRT toxicant batch #: N/A

sample log
Test Type: Screening | Definitive
Static | Static Renewal | Flow-through
Test Number: 3/4 of 4

Remarks: * Aeration for 1hr 15 min. due to low D.O. (1.0 mg/L) * Fish @ surface after loading. continuous aeration started @ 1545

Test organism: A. bahia (SG) 2/15/00
M. beryllina
sample aerated to ≥ 20 g/5.1 mg/L

2/25/00 DPH LC50 ? 100%

Conc.	Chamber #	Number Live 0 hr	24 h	48 h	pH 0 hr	24 h	48 h	Temperature (°C) 0 hr	24 h	48 h	D.O. (mg/L) 0 hr	24 h	48 h	UNCORRECTED Cond. (mmhos/cm) Cond. (µmhos/cm) 0 hr	24 h	48 h
(A. bahia) Cont. A	C1	5	5	4[10]	8.5	8.4	8.5	24.3	23.8	24.4	7.0	7.9	7.7	27.1	25.2	30.3
B	C2	5	5	5	8.5	8.4	8.5	24.3	23.8	24.2	7.0	7.9	7.7	27.5	27.9	29.8
C	C3	5	5	5	8.5	8.4	8.5	24.2	23.9	25.9	7.0	7.8	7.6	27.6	28.1	31.2
D	C4	5	5	5	8.5	8.4	8.5	24.2	24.0	24.7	7.1	7.8	7.6	27.5	28.3	29.7
100% A	C5	5	5	5	8.0	8.5	8.6	24.2	23.7	25.0	5.1	7.7	7.1	29.3	29.6	32.7
B	C6	5	5	5	8.0	8.5	8.6	24.2	23.6	24.3	5.1	7.8	7.3	29.4	30.0	32.0
C	C7	5	5	5	8.0	8.5	8.6	24.2	23.8	25.7	5.1	7.7	6.9	29.4	29.7	32.1
D	C8	5	5	5	8.0	8.5	8.6	24.2	23.9	26.5	5.1	7.6	6.5	29.3	30.4	35.2
(M. beryllina) Cont. A	C9	5	5	5[10]	8.5	8.4	8.5	24.0	24.5	24.1	7.1	7.6	7.8	27.3	~~25.~~ → SPH	~~27.0~~ (SG) 2/16/00
B	C10	5	5	5	8.5	8.4	8.5	24.0	24.5	24.0	7.1	7.6	7.8	27.6	28.2	31.4
C	C11	5	5	5	8.5	8.4	8.5	24.1	24.3	24.3	7.1	7.6	7.8	27.6	28.4	30.6
D	C12	5	5	5	8.5	8.4	8.5	24.1	23.7	24.1	7.1	7.7	7.8	27.5	29.9	31.8
100% A	C13	5	5	5	8.0	8.4	8.7	24.1	23.6	23.7	5.0	7.9	7.6	29.4	29.7	31.8
B	C14	5	5	5	8.0	8.5	8.7	24.1	23.7	24.4	5.0	7.7	7.5	29.3	30.5	32.7
C	C15	5	5	5	8.0	8.5	8.7	24.1	25.4	24.2	5.0	7.9	7.6	29.3	30.4	31.4
D	C16	5	5	5	8.0	8.5	8.7	24.1	25.5	23.5	5.0	7.6	7.6	29.3	30.8	32.6
measured by:		SG	MF	MF DPH	MF	DPH	SG	MF	DPH	SG	MF	DPH	SG	MF	DPH	SG
recorded by:		MF	DPH	MF	SG	SG	DPH	SG	SG	DPH	SG	SG	MF	SG	SG	DPH

C (conductivity below) accounts for salts added to equal volumes of control and acetone. Initial acetone salinity ≈ 1 ppt based on conductivity/temperature. MF 2/16/00

A (see below - salinity) recorded salinity is based on conductivity and temperature conversions. A refractometer was used to measure salinity when salt was added to the acetone. MF 2/16/00

Investigators' Signatures
Shannon Gerard
Marshall Faircloth

Temperature Range °C
Incubator # 3 23.5° - 26.0°C
Room B246 24.0° - 26.0°C

Salt Water

Water Quality Parameters	Well Water	20% Min Water	Sample	Method	Measured by	Verified by
Field Total Residual Cl2 (mg/L):			N/A	N/A	N/A	SG
Lab Total Residual Cl2 (mg/L):	<0.03		N/A	DPD 100	DPH	SG
Alkalinity (mg/L as $CaCO_3$):	189		N/A	Hach	SG	SG
Hardness (mg/L as $CaCO_3$):	N/A		N/A	Hach	SG	SG
Total ammonia (mg/L as N):	<0.017		N/A	Descr.	DPH	SG
A Salinity: (see A above and C above)	20 ppt. 17.4 mS 2/16/00		≈ 18‰	YSI	SG/MF	SG

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reviewer

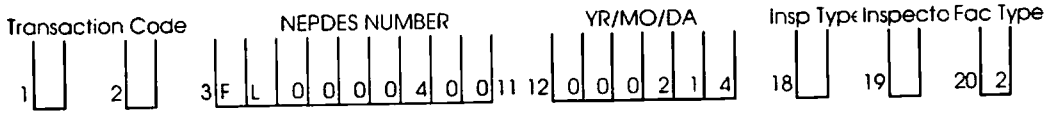
form updated 3/3/99

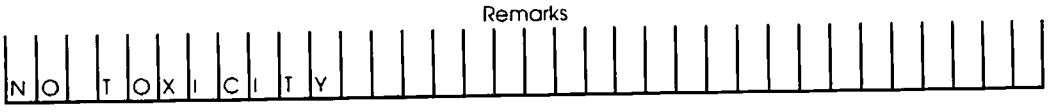
b* forgot to take these parameters of adjusted sample

B refers to only Adjusted Water, Initially measured by SG, verified by DPH. Salinity measured by MF 2/16/00

The Bioassay of the Stone Container effluent sampled on February 14, 2000, NPDES #FL0000400.

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

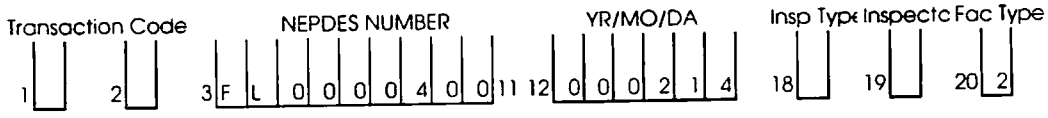


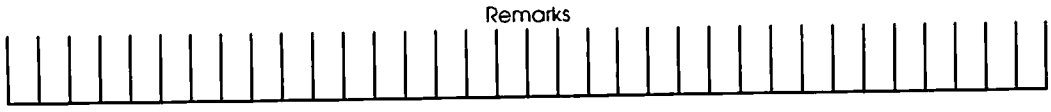


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The Priority Pollutants Analysis for Bioassay of the Stone Container effluent sampled on February 14, 2000, NPDES #FL0000400.

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





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