FILE COPY
DO NOT REMOVE



Bioassays of

Stone Container Corporation
Sediment Samples from St Andrews Bay near
Stone Container Corporation and near Pitts Street

Panama City, Bay County, Florida

No NPDES Number

Sampled 2/6/95

Originally issued April 1995
Revised May 1995

Biology Section
Division of Administrative and Technical Services
Comprehensive Quality Assurance Plan #870346G

Bioassays of

Stone Container Corporation

Sediment Samples from St Andrews Bay near
Stone Container Corporation and near Pitts Street

Panama City, Bay County, Florida

No NPDES Number

Biology Section
Bureau of Laboratories
Originally Issued April 1995
Revised May 1995

Introduction

Sediment samples from St. Andrew Bay, Panama City, Bay County, Florida, No NPDES number, tests performed on 7 to 9 February, 1995.

Two sediment samples (three replicates each) were collected from St. Andrew Bay, Panama City, Bay County, Florida by Glenn Butts, FDEP Pensacola. One sample (**Stone**) was taken in 0.8 meters of water, approximately 6.5 meters from Stone Container Corporation's monitoring well MW-46. The other sample (**Pitts**) was from a reference site near Pitts Street. The purpose of the samples was to determine if leachate from the clarifier was contaminating nearby sediments in the Bay (sampling information provided by Glenn Butts, FDEP Pensacola).

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 with the exception of using an elutriate rather than an effluent sample.

Results and Discussion

The elutriates used for these tests were prepared in accordance with methods described by Green *et al.*, 1989, *Protocols for Short Term Toxicity Screening of Hazardous Waste Sites*, EPA/600/3-88/029 and as follows: 200 mL of sediment was added to 800 mL of natural seawater, shaken for 15 minutes, and centrifuged seven minutes at 15,000 rpm at 24°C. Four subsamples from each site were combined, mixed, and then added to the appropriate test vessels.

The FDEP Biology Section performed two 48-hour static acute screening toxicity bioassays on each of the two elutriate samples prepared from the two sediment samples collected from St. Andrew Bay. The salinity of the **Stone** sample was 24.4 ppt and the salinity of the **Pitts** sample was 21.9 ppt, therefore, the test organisms used for these bioassays were the mysid shrimp, *Mysidopsis bahia*, and the inland silverside minnow, *Menidia beryllina*. The control water for these tests was natural seawater having a salinity of 22 ppt.

Test results indicate that the **Stone** sample was toxic to the mysids, producing 50% mortality in the 100% sample test. There was no mortality in the **Stone** *Menidia* test. Test results from the **Pitts** bioassay showed some toxicity to both mysids and *Menidia*, producing 10% mortality in each 100% sample test.

Total residual chlorine and total ammonia were not detected in either sample. Further chemical analyses were not performed on either sample.

Conclusion

The elutriate bioassays performed on a sample of sediment collected from St. Andrew Bay near the Stone Container Corporation's earthen clarifier on February 5, 1995, showed toxicity to mysids (50% mortality) but not *Menidia*.

The elutriate bioassays performed on a sample of sediment collected from the St. Andrew Bay reference site near Pitts Street showed some toxicity to mysids (10% mortality) and *Menidia* (10% mortality). The cause of toxicity was not determined in either sample.

Table 1. Data recorded during the 48-hour acute screening bioassays of an elutriate prepared from a sample of sediment from St. Andrew Bay near Stone Container Corporation, Panama City, Bay County, Florida, performed on 7 to 9 February, 1995.

Location:	**Near Stone Container Corporation**		**NPDES #**	**none**	Sample Type: **Sediment**
	St. Andrew Bay, Panama City		Contact/District:	G. Butts/NW	
County:	Bay		Test type:	static acute screen	
Sample Collection Date:	**2/6/95**	Time: 1055	# tests:	2	Water Body: St. Andrew Bay
Test Beginning Date:	2/7/95	Time: 1630	Chlorination Type:	**not chlorinated**	
Test Ending Date:	2/9/95	Time: 1630			**Page 1 of 2**

Organism: ***Mysidopsis bahia*** Life stage: 3 days

Concentrations	Sample/Diluent Volume(mL)	SURVIVAL # Alive 0 hr	24 hr	48 hr	pH 0 hour	24 hour	48 hour	Temperature [A] 0 hour	24 hour	48 hour	Dissolved Oxygen 0 hour	24 hour	48 hour	Conductivity uncorrected mmhos/cm 0 hour	48 hour
Control A	0/500	5	5	5	8.4	8.4	8.4	22.0	20.6	19.5	7.9	7.4	7.2	32.8	32.0
Control B	0/500	5	5	5	8.4	8.4	8.4	-	-	19.4	7.9	7.5	7.2	32.8	31.9
Control C	0/500	5	5	5	8.4	8.4	8.4	-	-	19.4	7.9	7.5	7.5	32.9	31.8
Control D	0/500	5	5	5	8.4	8.4	8.4	-	-	19.5	7.9	7.5	7.6	32.9	32.1
100% A	500/0	5	3	3	7.8	8.1	8.3	23.0	20.9	20.1	6.5	6.9	7.5	36.9	36.1
100% B	500/0	5	2	1	7.8	8.1	8.3	-	-	19.7	6.5	7.1	7.7	36.9	35.7
100% C	500/0	5	5	5	7.8	8.1	8.3	-	-	19.5	6.6	7.1	8.0	36.9	35.6
100% D	500/0	5	2	1	7.8	8.1	8.3	-	-	19.6	6.6	7.2	7.9	36.9	36.1

[A] Temperature of test room was continously recorded on a strip chart recorder. Room temperature range for the test period was 21-23°C.

Organism: ***Menidia beryllina*** Age: 11 and 13 days

Concentrations	Sample/Diluent Volume(mL)	SURVIVAL # Alive 0 hr	24 hr	48 hr	pH 0 hour	24 hour	48 hour	Temperature [B] 0 hour	24 hour	48 hour	Dissolved Oxygen 0 hour	24 hour	48 hour	Conductivity uncorrected mmhos/cm 0 hour	48 hour
Control A	0/500	5	5	5	8.4	8.4	8.4	22.2	20.3	19.5	7.7	7.4	7.5	32.9	31.9
Control B	0/500	5	5	5	8.4	8.4	8.4	-	-	19.4	7.8	7.4	7.7	32.9	31.7
Control C	0/500	5	5	5	8.4	8.4	8.4	-	-	19.3	7.8	7.5	7.7	32.9	31.6
Control D	0/500	5	5	5	8.4	8.4	8.4	-	-	19.5	7.9	7.5	7.7	32.8	32.0
100% A	500/0	5	5	5	7.8	8.1	8.3	23.0	20.6	19.5	6.4	7.1	7.9	36.9	35.6
100% B	500/0	5	5	5	7.8	8.1	8.3	-	-	19.1	6.4	7.1	8.0	36.9	35.3
100% C	500/0	5	5	5	7.8	8.0	8.3	-	-	19.0	6.5	7.2	8.1	36.9	35.1
100% D	500/0	5	5	5	7.8	8.1	8.3	-	-	19.2	6.5	7.1	8.0	36.9	35.4

[B] Temperature of test room was continously recorded on a strip chart recorder. Room temperature range for the test period was 21-23°C.

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:	168	-
100% Sample:	174	-

Salinity*	(ppt)
Control Water:	22
100% Sample:	24.4

*Salinity converted from conductivity/temperature measurements.

Table 1. Continued. Data recorded during the 48-hour acute screening bioassays of an elutriate prepared from a sample of sediment from St. Andrew Bay near Pitts Street, Panama City, Bay County, Florida, performed on 7 to 9 February, 1995.

Location:	**Near Pitts Street**		**NPDES #**	**none**	Sample Type: **Sediment from reference site**
	St. Andrew Bay, Panama City		Contact/District:	G. Butts/NW	
County:	Bay		Test type:	static acute screen	
Sample Collection Date:	**2/6/95**	Time: 1400	# tests:	2	Water Body: St. Andrew Bay
Test Beginning Date:	2/7/95	Time: 1630	Chlorination Type:	**not chlorinated**	
Test Ending Date:	2/9/95	Time: 1630			**Page 2 of 2**

Organism: ***Mysidopsis bahia*** Life stage: 3 days

Concentrations	Sample/Diluent Volume(mL)	SURVIVAL # Alive 0 hr	24 hr	48 hr	pH 0 hour	24 hour	48 hour	Temperature [A] 0 hour	24 hour	48 hour	Dissolved Oxygen 0 hour	24 hour	48 hour	Conductivity uncorrected mmhos/cm 0 hour	48 hour
Control A	0/500	5	5	5	8.4	8.4	8.4	21.9	20.4	19.5	7.8	7.4	7.8	32.8	32.0
Control B	0/500	5	5	5	8.4	8.4	8.4	-	-	19.3	7.9	7.4	7.9	32.8	31.8
Control C	0/500	5	5	5	8.4	8.4	8.4	-	-	19.3	7.9	7.5	7.9	32.8	31.8
Control D	0/500	5	5	5	8.4	8.4	8.4	-	-	19.4	8.0	7.5	7.9	32.9	32.1
100% A	500/0	5	5	5	7.9	8.2	8.4	22.5	20.9	19.3	7.6	7.7	8.2	34.1	33.4
100% B	500/0	5	5	5	7.9	8.2	8.4	-	-	19.2	7.6	7.7	8.3	34.1	33.2
100% C	500/0	5	4	3	7.9	8.3	8.4	-	-	19.4	7.6	7.8	8.4	34.1	33.5
100% D	500/0	5	5	5	7.9	8.2	8.4	-	-	19.3	7.6	7.7	8.3	34.1	33.4

[A] Temperature of test room was continously recorded on a strip chart recorder. Room temperature range for the test period was 21-23°C.

Organism: ***Menidia beryllina*** Age: 11 and 13 days

Concentrations	Sample/Diluent Volume(mL)	SURVIVAL # Alive 0 hr	24 hr	48 hr	pH 0 hour	24 hour	48 hour	Temperature [B] 0 hour	24 hour	48 hour	Dissolved Oxygen 0 hour	24 hour	48 hour	Conductivity uncorrected mmhos/cm 0 hour	48 hour
Control A	0/500	5	5	5	8.4	8.4	8.4	22.1	20.5	19.6	7.7	7.3	7.8	33.0	32.1
Control B	0/500	5	5	5	8.4	8.4	8.4	-	-	19.6	7.8	7.3	7.9	32.9	31.7
Control C	0/500	5	5	5	8.4	8.4	8.4	-	-	19.5	7.8	7.4	8.0	32.9	31.8
Control D	0/500	5	5	5	8.4	8.4	8.4	-	-	19.7	7.8	7.5	7.8	32.9	32.2
100% A	500/0	5	5	4	7.9	8.2	8.4	22.6	20.7	19.2	7.3	7.7	8.2	34.1	33.0
100% B	500/0	5	5	4	7.9	8.2	8.4	-	-	19.2	7.4	7.5	8.4	34.0	33.7
100% C	500/0	5	5	5	7.9	8.2	8.4	-	-	19.5	7.4	7.6	8.1	34.0	33.4
100% D	500/0	5	5	5	7.9	8.2	8.4	-	-	19.4	7.5	7.6	7.9	34.1	33.1

[B] Temperature of test room was continously recorded on a strip chart recorder. Room temperature range for the test period was 21-23°C.

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:	185	-
100% Sample:	200	-

Salinity*	(ppt)
Control Water:	22.0
100% Sample:	21.9

*Salinity converted from conductivity/temperature measurements.

FDEP Biology Section — Acute Bioassay Bench Sheet

Sample Source: Stone (Sediment sample)
County: Bay
Contact/District: Glenn Butts / NW
NPDES Permit #: FL00
LIMS Sample #: 98598 LIMS Job #: 95-FEB-07-13-01

Sample Collection: Date 2/6/95 Time 1055
Test Beginning: Date 2/7/95 Time 1630
Test Ending: Date 2/9/95 Time 1630
Organism Batch #: 4 Diluent Batch #: 4
Organism Age: 3 days
Test Organism: Mysidopsis bahia

Test Type: (Screening) / Definitive
(Static) / Static Renewal / Flow-through

Test Number: 1 of 2

Remarks: Elutriate prepared as per EPA/600/3-88/029 except 200ml sediment added to 500ml Natural Seawater. Shaken 15 min. Centrifuged 7 min. at 15,000 rpm at 24°C. Four subsamples then combined, mixed, then added to test vessels. TM

Instrument Calibrations:	pH	Temperature °C	D.O. mg/L	Conductivity µmhos/cm
meter #	7851	90H018262	90H018262	G9005749
0 hr	7.0 @ 7.0 9.0 @ 9.0	19.7 @ 19.8	8.8 @ 21.8 °C	98.2 @ 104.1 910 @ 1000 @ 21.7 °C
24 hr	7.0 @ 7.0 9.0 @ 9.0	19.0 @ 19.1	9.1 @ 19.6 °C	930 @ 1000 (9240 @ 10000) 9310 @ 10000 @ 21.8 °C
48 hr	7.0 @ 7.0 9.0 @ 9.0	19.1 @ 19.1	9.2 @ 19.2 °C	980 @ 1000 9680 @ 10000 @ 19.8 °C

Conc.	Chamber #	Number Live 0 hr	Number Live 24 h	Number Live 48 h	pH 0 hr	pH 24 h	pH 48 h	Temperature (°C) 0 hr	Temperature (°C) 24 h	Temperature (°C) 48 h	D.O. (mg/L) 0 hr	D.O. (mg/L) 24 h	D.O. (mg/L) 48 h	UNCORRECTED Cond. (mmhos/cm) Cond. (µmhos/cm) 0 hr	24 h	48 h
CTL A	21	5	5	5	8.4	8.4	8.4	22.0	20.6	19.5	7.9	7.4	7.2	32.8	32.2	32.0
CTL B	27	5	5	5	8.4	8.4	8.4			19.4	7.9	7.5	7.2	32.8	32.0	31.9
CTL C	1	5	5	5	8.4	8.4	8.4			19.4	7.9	7.5	7.5	32.9	31.9	31.8
CTL D	120	5	5	5	8.4	8.4	8.4			19.5	7.9	7.5	7.6	32.9	31.9	32.1
100% A	9	5	3	3	7.8	8.1	8.3	23.0	~~20.5~~	20.1	6.5	~~7.4~~ #2	7.5	36.9	35.8	36.1
100% B	14	5	2	1	7.8	8.1	8.3			19.7	6.5	~~7.4~~	7.7	36.9	35.4	35.7
100% C	302	5	5	5	7.8	8.1	8.3			19.5	6.6	~~7.5~~	8.0	36.9	35.2	35.6
100% D	19	5	2	1	7.8	8.1	8.3			19.6	6.6	~~7.5~~	7.9	36.9	35.6	36.1
								* water in wrong place TM			#2 water in wrong place					
									20.9			6.9				
												7.1				
												7.1				
												7.2				
Recorded by:		TR	MF	MF	JN	TM	TR	JN	TM	TR	JN	TM	TR	JN	TM	TR
Measured/Loaded by:		TR	MF	MF	TM	JN	MF	TM	JN	MF	TM	JN	MF	TM	JN	MF

Investigators' Signatures

Reviewer

Water Quality Parameters	Salt Water: Well Water	20% Min Water	Sample	Method	Measured by
Field Total Residual Cl2 (mg/L):			—	—	—
Lab Total Residual Cl2 (mg/L):	<0.03	—	<0.03	DR100	TM
Alkalinity (mg/L as $CaCO_3$):	185	—	235	Hach	JN
Hardness (mg/L as $CaCO_3$):	—	—	—	—	—
Total ammonia (mg/L as N):	<0.017	—	<0.017	Orion	TM

Ammonia Meter #98136 Ammonia Meter Slope: -56.60 Ammonia Blank: <0.017 Control Salinity: 22 ppt Sample Salinity: 27.4 ppt

form updated 10/05/94

FDEP Biology Section — Acute Bioassay Bench Sheet

Sample Source: Stone (Sediment Sample)
County: Bay
Contact / District: Glenn Butts / NW
NPDES Permit #: FL00
LIMS Sample #: 98598 LIMS Job #: 95-FEB-07-13-01

Sample Collection: Date 2/6/95 Time 1055
Test Beginning: Date 2/7/95 Time 1630
Test Ending: Date 2/9/95 Time 1630
Organism Batch #: 748 Diluent Batch #: 4
Organism Age: 11 and 13 days
Test Organism: Mendidia beryllina

Test Type: ~~Screening~~ / Definitive
~~Static~~ / Static Renewal / Flow-through
Test Number: 2 of 2
Remarks: See remarks Test 1

Instrument Calibrations:	pH	Temperature °C	D.O. mg/L	Conductivity µmhos/cm
meter #	7851	90H018262	90H018262	G9005749
0 hr	7.0 @ 7.0 9.0 @ 9.0	19.7 @ 19.8	8.8 @ 21.8 °C	98.2 @ 104.1 910 @ 1000 @ 21.7 °C
24 hr	7.0 @ 7.0 9.0 @ 9.0	19.0 @ 19.1	9.1 @ 19.6 °C	930 @ 9240 @ 10000 @ 1000 9310 @ 10000 @ 21.8 °C
48 hr	7.0 @ 7.0 9.0 @ 9.0	19.1 @ 19.1	9.2 @ 19.2 °C	980 @ 1000 9680 @ 10000 @ 19.8 °C

Conc.	Chamber #	Number Live 0 hr	Number Live 24 h	Number Live 48 h	pH 0 hr	pH 24 h	pH 48 h	Temperature (°C) 0 hr	Temperature (°C) 24 h	Temperature (°C) 48 h	D.O. (mg/L) 0 hr	D.O. (mg/L) 24 h	D.O. (mg/L) 48 h	UNCORRECTED Cond. (~~mmhos/cm~~ µmhos/cm) 0 hr	UNCORRECTED Cond. (µmhos/cm) 24 h	UNCORRECTED Cond. (µmhos/cm) 48 h
CTL A	891	5	5	5	8.4	8.4	8.4	22.2	20.3	19.5	7.7	7.4	7.5	32.9	32.1	31.9
CTL B	883	5	5	5	8.4	8.4	8.4			19.4	7.8	7.4	7.7	32.9	32.0	31.7
CTL C	28	5	5	5	8.4	8.4	8.4			19.3	7.8	7.5	7.7	32.9	32.1	31.6
CTL D	305	5	5	5	8.4	8.4	8.4			19.5	7.9	7.5	7.7	32.8	32.3	32.0
100% A	209	5	5	5	7.8	8.1	8.3	23.0	20.6	19.5	6.4	7.1	7.9	36.9	35.5	35.6
100% B	44	5	5	5	7.8	8.1	8.3			19.1	6.4	7.1	8.0	36.9	35.2	35.3
100% C	29	5	5	5	7.8	8.0	8.3			19.0	6.5	7.2	8.1	36.9	35.1	35.1
100% D	476	5	5	5	7.8	8.1	8.3			19.2	6.5	7.1	8.0	36.9	35.2	35.4
Recorded by:		TR	MF	MF	JN	TM	TR	JN	TM	TR	JN	TM	TR	JN	TM	TR
Measured/Loaded by:		JLS	MF	MF	TM	JN	MF	TM	JN	MF	TM	JN	MF	TM	JN	MF

Investigators' Signatures
Robin C. Rader
Joseph Mowatt
Tina Mikulski
Maybelle Fairbrother
Reviewer

Water Quality Parameters	Salt Water Well Water	20% Min Water	Sample	Method	Measured by
Field Total Residual Cl2 (mg/L):			—	—	—
Lab Total Residual Cl2 (mg/L):	<0.03	—	<0.03	DR 100	TM
Alkalinity (mg/L as $CaCO_3$):	185	—	235	Hach	JN
Hardness (mg/L as $CaCO_3$):		—	—	—	—
Total ammonia (mg/L as N):	<0.017	—	<0.017	Orion	TM

Ammonia Meter #98136 Ammonia Meter Slope: -56.6 Ammonia Blank: <0.017 Control Salinity: 22 ppt Sample Salinity: 24.4 ppt

form updated 10/05/94

FDEP Biology Section — Acute Bioassay Bench Sheet

Sample Source: pitt (Sediment Sample)
County: BAY
Contact / District: Glenn Butts / NW
NPDES Permit #: FL00
LIMS Sample #: 98599 LIMS Job #: 95-FEB-13-02

Sample Collection: Date 2/6/95 Time 1400
Test Beginning: Date 2/7/95 Time 1630
Test Ending: Date 2/9/95 Time 1630
Organism Batch #: 4 Diluent Batch #: 4
Organism Age: 3 days
Test Organism: Mysidopsis bahia

Test Type: (Screening) / Definitive
Static / Static Renewal / Flow-through

Test Number: 1 of 2

Remarks: Elutriate prepared as per EPA/600/3-88/029 except 200ml sediment added to 800ml Natural Seawater. Shaken 15 min. Centrifuged 7 min. at 15,000 RPM at 24°C. Four subsamples combined, mixed, then added to test vessels. DH

Instrument Calibrations:	pH	Temperature °C	D.O. mg/L	Conductivity µmhos/cm
meter #	7851	90H018262	90H018262	G9005749
0 hr	7.0 @ 7.0 9.0 @ 9.0	19.7 @ 19.8	8.8 @ 21.8 °C	930 @ 1000 9310 @ 10000 @ 21.7 °C
24 hr	7.0 @ 7.0 9.0 @ 9.0	19.0 @ 19.1	9.1 @ 19.6 °C	930 @ 1000 9310 @ 10000 @ 21.8 °C
48 hr	7.0 @ 7.0 9.0 @ 9.0	19.1 @ 19.1	9.2 @ 19.2 °C	980 @ 1000 9680 @ 10000 @ 19.8 °C

Conc.	Chamber #	Number Live 0 hr	Number Live 24 h	Number Live 48 h	pH 0 hr	pH 24 h	pH 48 h	Temperature (°C) 0 hr	Temperature (°C) 24 h	Temperature (°C) 48 h	D.O. (mg/L) 0 hr	D.O. (mg/L) 24 h	D.O. (mg/L) 48 h	UNCORRECTED Cond. (mmhos/cm) 0 hr	UNCORRECTED Cond. (mmhos/cm) 24 h	UNCORRECTED Cond. (mmhos/cm) 48 h
CTL A	18	5	5	5	8.4	8.4	8.4	21.9	20.4	19.5	7.8	7.4	7.8	32.8	32.4	32.0
CTL B	24	5	5	5	8.4	8.4	8.4			19.3	7.9	7.4	7.9	32.6	32.2	31.8
CTL C	301	5	5	5	8.4	8.4	8.4			19.3	7.9	7.5	7.9	32.8	32.0	31.8
CTL D	28	5	5	5	8.4	8.4	8.4			19.4	8.0	7.5	7.9	32.9	31.9	32.1
100% A	104	5	5	5	7.9	8.2	8.4	22.5	20.9	19.3	7.6	7.7	8.2	34.1	33.4	33.4
100% B	366	5	5	5	7.9	8.2	8.4			19.2	7.6	7.7	8.3	34.1	33.1	33.2
100% C	380	5	4	3	7.9	8.3	8.4			19.4	7.6	7.8	8.4	34.1	33.2	33.5
100% D	287	5	5	5	7.9	8.2	8.4			19.3	7.6	7.7	8.3	34.1	32.9	33.4
Recorded by:		TR	MC	MF	JN	TM	TR	JN	TM	TR	JN	TM	TR	JN	TM	TR
Measured/Loaded by:		JLS	MF	MF	TM	JN	MF	TM	JN	MF	TM	JN	MF	TM	JN	MF

Investigators' Signatures: Jennifer Sagapan, Joseph Mikulski, Jena Mikulski, Marshall Faircloth, Robin C. Rader, [illegible] Reviewer

Salt Water

Water Quality Parameters

	Well Water	20% Min Water	Sample	Method	Measured by
Field Total Residual Cl2 (mg/L):			—	—	—
Lab Total Residual Cl2 (mg/L):	<0.03	—	<0.03	DR100	TM
Alkalinity (mg/L as $CaCO_3$):	185	—	200	Hach	JN
Hardness (mg/L as $CaCO_3$):	—	—	—	—	—
Total ammonia (mg/L as N):	<0.017	—	<0.017	Orion	TM

Ammonia Meter #98136 Ammonia Meter Slope: -56.6 Ammonia Blank: <0.017 Control Salinity: 22 ppt Sample Salinity: ~~24.4~~ 21.9 ppt
Wrote wrong # MF 2/7/95

form updated 10/05/94

FDEP Biology Section — Acute Bioassay Bench Sheet

Sample Source: pitt (Sediment Sample)
County: Bay
Contact / District: Glenn Butts / NW
NPDES Permit #: FL00
LIMS Sample #: 98599 LIMS Job #: 95-FEB-13-02

Sample Collection: Date 2/6/95 Time 1400
Test Beginning: Date 2/7/95 Time 1630
Test Ending: Date 2/9/95 Time 1630
Organism Batch #: 7+8 Diluent Batch #: 4
Organism Age: 11 and 13 days
Test Organism: Menidia Beryllina

Test Type: (Screening) / Definitive
(Static) / Static Renewal / Flow-through
Test Number: 2 of 2
Remarks: See remarks Test 1.

Instrument Calibrations:	pH	Temperature °C	D.O. mg/L	Conductivity µmhos/cm
meter #	7851	90H018262	90H018262	G9005749
0 hr	7.0 @ 7.0 9.0 @ 9.0	19.7 @ 19.8	8.8 @ 21.8 °C	930 @ 1000 9240 @ 10000 @ 21.7 °C
24 hr	7.0 @ 7.0 9.0 @ 9.0	19.0 @ 19.1	9.1 @ 19.6 °C	930 @ 1000 9310 @ 10000 @ 21.8 °C
48 hr	7.0 @ 7.0 9.0 @ 9.0	19.1 @ 19.1	9.2 @ 19.2 °C	980 @ 1000 9680 @ 10000 @ 19.8 °C

		Number Live			pH			Temperature (°C)			D.O. (mg/L)			UNCORRECTED Cond. (mmhos/cm) Cond. (µmhos/cm)		
Conc.	Chamber #	0 hr	24 h	48 h	0 hr	24 h	48 h	0 hr	24 h	48 h	0 hr	24 h	48 h	0 hr	24 h	48 h
CTL A	306	5	5	5	8.4	8.4	8.4	22.1	20.5	19.6	7.7	7.3	7.8	33.0	32.3	32.1
Control B	147	5	5	5	8.4	8.4	8.4			19.6	7.8	7.3	7.9	32.9	31.8	31.7
CTL G	196	5	5	5	8.4	8.4	8.4			19.5	7.8	7.4	8.0	32.9	31.8	31.8
CTL D	43	5	5	5	8.4	8.4	8.4			19.7	7.8	7.5	7.8	32.9	32.0	32.2
100%A	775	5	5	4	7.9	8.2	8.4	22.0	20.7	19.2	7.3	7.7	8.2	34.1	33.2	33.0
100%B	508	5	5	4	7.9	8.2	8.4			19.2	7.4	7.5	8.4	34.0	32.8	33.7
100%C	41	5	5	5	7.9	8.2	8.4			19.5	7.4	7.6	8.1	34.0	32.8	33.4
100%D	132	5	5	5	7.9	8.2	8.4			19.4	7.5	7.6	7.9	34.1	32.9	33.1
Recorded by:		TR	MF	MF	JN	TM	TR	JN	TM	TR	JN	TM	TR	JN	TM	TR
Measured/Loaded by:		TR	MF	MF	TM	JN	MF	TM	JN	MF	TM	JN	MF	TM	JN	MF

Investigators' Signatures
Jennifer Sparapani
Robin C. Rader
Joseph North
Lisa Mikulski
Mary Jo Fairchild
Reviewer

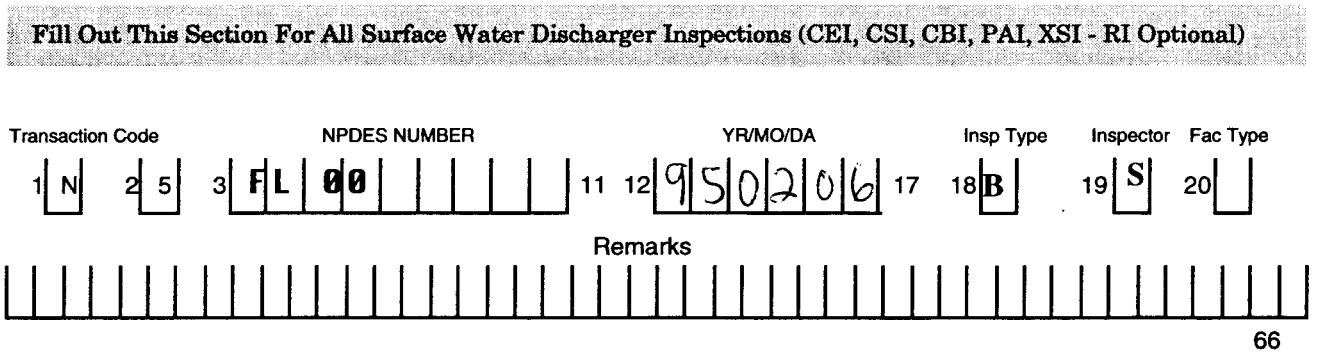
Water Quality Parameters

	Salt Water: Well Water	20% Min Water	Sample	Method	Measured by
Field Total Residual Cl2 (mg/L):			/	—	—
Lab Total Residual Cl2 (mg/L):	<0.03	—	<0.03	DR100	TM
Alkalinity (mg/L as $CaCO_3$):	185	—	200	Hach	JN
Hardness (mg/L as $CaCO_3$):	—	—	—	—	—
Total ammonia (mg/L as N):	<0.017	—	<0.017	Orion	TM

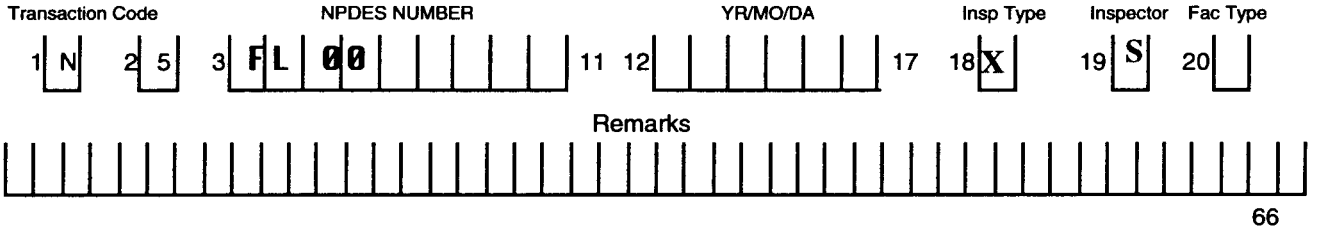
Ammonia Meter #98136 Ammonia Meter Slope: -56.6 Ammonia Blank: <0.017 Control Salinity: 22 ppt Sample Salinity: 24.4 ppt
wrote wrong # MF 2/7/95

form updated 10/05/94

The Bioassay of the Sediment sample from St. Andrew Bay near Stone Container Corporation, sampled on February 6, 1995, no NPDES #.

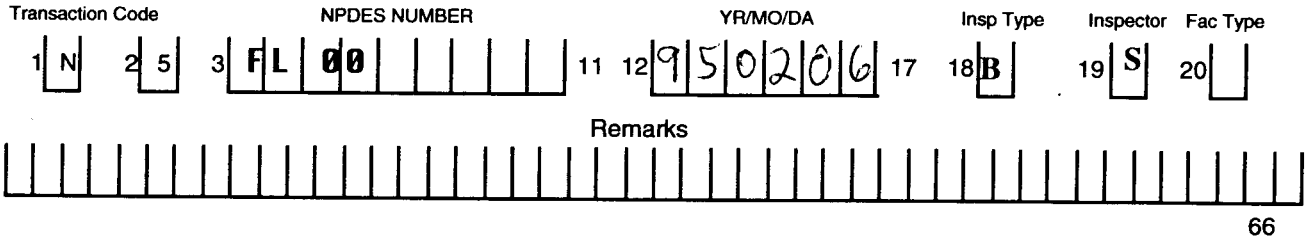


No Priority Pollutants were analyzed for the Sediment sample from St. Andrew Bay near Stone Container Corporation, sampled on February 6, 1995, no NPDES #.



The Bioassay of the Sediment sample from St. Andrew Bay near Pitts Street, sampled on February 6, 1995, no NPDES #.

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



No Priority Pollutants were analyzed for the Sediment sample from St. Andrew Bay near Pitts Street, sampled on February 6, 1995, no NPDES #.

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

