

**CITY OF CLINTON  
EAST**

**BIO MONITORING REPORT**

**Sample dates:  
February 10 – 14, 2014**

Prepared by:  
Environmental Services Company  
13715 West Markham  
Little Rock, AR 72211



www.etcmemphis.com

# ENVIRONMENTAL TESTING & CONSULTING, INC.

2780 Whitten Road

Memphis, Tennessee 38133

(801) 213-2400

Fax (801) 213-2440

"A Laboratory Management Partner"

3/7/2014

Environmental Services Co.Inc.

Ms. Joyce Brown

13715 W. Markham St.

Little Rock, AR, 72211

Ref: Analytical Testing

ETC Report Number: 14-042-0190

Client Project Description: Clinton – Bioassay

Dear Permittee:

The results of this WET (Whole Effluent Toxicity) test are acceptable according to test review criteria. There were no significant deficiencies found in sample handling, test performance, or reporting. The test results are within the limits established by your NPDES permit and were entered into the permittee's records in the database.

Results: CV/NOEL = 100%

Permit Limit: 100%

All statistical interpretations generated by CETIS - Comprehensive Environmental Toxicity Information System (v.1.8.6.1). CETIS created by Tidepool Scientific Software

Respectfully,

Connie Cook  
Lab Supervisor

# Environmental Services Company, Inc.

Corporate Office  
 13715 West Markham  
 Little Rock, AR 72211  
 Tel. (501)221-2565 Fax (501)221-1341

Northwest Arkansas Branch  
 1107 Century Avenue  
 Springdale, AR 72762  
 Tel. (479)750-1170 Fax (479)750-1172

Control Number: 1402010186  
 Customer Name : CLINTON, EAST 001  
 Customer/Permit No. : 495 / AR0048836 001  
 Report Date : 03/11/14

Composite Date:02/09/14 -02/10/14  
 Sample Time : 0800-0800/0824(2-10)  
 Sample Type : COMPOSITE/GRAB WW  
 Sample From : FINAL EFFLUENT/BIO 1


Collected By: PG/MCH  
 Delivery By : MCH  
 Work Order :  
 Purchase Order :

<u>Laboratory Analysis</u>							<u>Quality Assurance</u>		
<u>Analysis</u>							<u>Precision</u>	<u>Accuracy</u>	
<u>Date</u>	<u>Time</u>	<u>By</u>	<u>Parameter</u>	<u>Result</u>	<u>Notes</u>	<u>Quantity</u>	<u>Method</u>	<u>% RPD</u>	<u>% Recovery</u>
02/10	0829	MCH	Dissolved Oxygen	10.2 mg/L		51.00 #/day	SM 18th 4500-O G	0.00	N/A
02/11	1400	ACH	Ammonia Nitrogen	4.35 mg/L		21.75 #/day	1997 4500-NH3 G	5.71	101.0 *
02/10	0829	MCH	pH	7.5 S.U.			2000 4500 H+B	0.00	N/A
02/12	0845	NTR	Phosphorous, Total (as P)	0.52 mg/L		2.60 #/day	EPA 365.3	0.00	96.0 *
02/10	1700	NTR	Solids, Total Suspended	5.00 mg/L		25.00 #/day	1997 2540 D	18.18	N/A *
02/10	1030	MCH	Coliform, Fecal	10 #/100M			1997 9222D	0.00	N/A *
02/10	1030	MCH	E. COLI	< 5.00 #/100M		25.00 #/100M	HACH 10029		
02/14	0600	NTR	BOD, Carbonaceous	< 2.00 mg/L		10.00 #/day	2001 5210B	0.00	101.5 *
02/15	0645	NTR	Nitrate + Nitrite	0.91 mg/L		4.55 #/day	2000 4500-NO3 E	1.24	97.2 *
			Flow	0.600000	MGD				

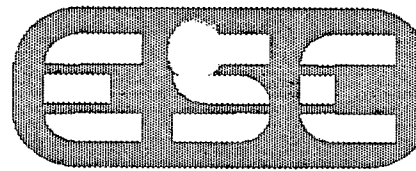
\* QA data shown is from a different sample or standard on the same date.

All equipment used is checked and/or calibrated daily. All NPDES testing is conducted in accordance with 40 CFR Part 136. A minimum of 10% spiked and duplicate samples is run on each parameter where applicable for Quality Assurance purposes. Quality Assurance Plan on file with Arkansas Department of Environmental Quality. Analysis time indicates the time of the start of the analytical batch in which the specific sample was included.

Signature \_\_\_\_\_

  
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 13715 West Markham P.O. Box 55146  
 Little Rock, AR 72211 Little Rock, AR 72215  
 website: www.esclabs.com



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 Northwest Branch  
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 Springdale, AR 72762

Phone: 501-221-2565 Fax: 501-221-1341

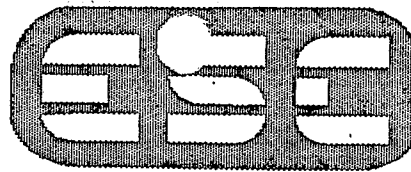
## CHAIN OF CUSTODY

Phone 479-750-1170 Fax: 479-750-1172

Client Information				Project Information							Requested Parameters					
Company Name: Clinton East 001				Permit/Project #: AR0048836							Chronic Bio-Monitoring (83.1)					
Address: P.O. Box 277				Purchase Order #:												
Clinton, AR 72031				Work Order #:												
Telephone: 501-745-4320				Sampler Name(s): <i>mickelinko</i>												
Contact: Mr. Isaac Keeling				and Signature(s): <i>mickelinko</i>												
FAX: 501-745-2164																
ESC Client Number: 495 (Bio-monitoring)																
Sample Identification			Sample Collection				Sample Containers									
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#							
Final Effluent	<i>1402010196</i>	<i>2-10-14</i>	<i>8:00</i>	Composite	Wwater	Plastic	1 Gal	Cool ≤ 6° C	1	X						
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)			Date	Time	Custody Seals:							
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)			Date	Time	Used? <input checked="" type="checkbox"/> Intact? <input type="checkbox"/>							
Relinquished By: (Signature and Printed Name)		Date	Time	Received for Lab By: (Signature and Printed Name)			Date	Time	Turnaround: Regular <input checked="" type="checkbox"/> Special <input type="checkbox"/>							
<i>mickelinko</i>		<i>2-10-14</i>	<i>10:20</i>	<i>mickelinko</i>			<i>2-10-14</i>	<i>10:20</i>	Were samples properly preserved: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							
Comments:						Flow Data	Field Test	Time	Analyst	Result	Result	Units				
						Analyst:	pH:		<i>MCH</i>			S.U.				
						Time:										
						Reading:										
						Units:										
							Fecal Start:						This Document is Page ___ of ___			

Directions

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# CHAIN OF CUSTODY

Phone 479-750-1170 Fax: 479-750-1172

Client Information				Project Information							Requested Parameters									
Company Name: Clinton, East 001				Permit/Project #: AR0048836							CBOD(70), TSS(28.)	NH3-N(15-A)	DO (10.), pH(23.)	Fecal Coliform (43.)						
Address: P.O. Box 277				Purchase Order #:																
Clinton, AR 72031				Work Order #																
Telephone: 501-745-4320				Sampler Name(s): Phil Graham																
Contact: Mr. Isaac Keeling				and Signature(s): <i>Phil Graham</i>																
FAX: 501-745-2164																				
ESC Client Number: 495 (3X per week)																				
Sample Identification		Sample Collection				Sample Containers														
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#											
Final Effluent	M02010146	2-9-14	8AM	24Hr. Comp	Wwater	Plastic	1/2 Gal	≤ 6 Deg C	1	X										
		2-10-14	8AM	24Hr. Comp	Wwater	Plastic	1 Liter	H2SO4	1		X									
		2-10-14	8:24	Grab	Wwater	Plastic	1 Liter	≤ 6 Deg C	1			X								
			1	Grab	Wwater	Whirlpak	150 mls	Na2S2O3	1				X							
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Custody Seals:		Used? <input checked="" type="checkbox"/>		Intact? <input type="checkbox"/>								
<i>Phil Graham</i> Phil Graham		2-9-14	8AM	<i>Mike Henkle</i>		2-10-14	8:24	Turnaround:		Regular <input checked="" type="checkbox"/>		Special <input type="checkbox"/>								
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Were samples properly preserved:		Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>								
<i>Mike Henkle</i>		2-10-14	10:20	<i>Mike Henkle</i>		2-10-14	10:20													
All samples cooled to ≤ 6 Deg with ice.				Flow Data		Field Test		Time	Analyst	Result	Result	Units								
Comments: * DO May to November only				Analyst: <i>MLK</i>		pH: <i>8.29</i>		<i>8:24</i>	<i>MLK</i>	<i>10.5</i>	<i>7.15</i>	<i>5.0</i>								
				Time: <i>8:30</i>		DO: * <i>8.22</i>		<i>10:20</i>	<i>MLK</i>	<i>10.2</i>	<i>10.2</i>	<i>mg/L</i>								
				Reading: <i>0.6</i>																
				Units: <i>MGD</i>		ECol: <i>1030</i>		<i>MLK</i>												
				Chlorinated? Y N		Fecal Start: <i>1030</i>		<i>MLK</i>												

*MLK*  
 G:\WP50\DOC\FORMS\CHAIN.XLS



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CHAIN OF CUSTODY

Phone 479-750-1170 Fax 479-750-1172

Client Information				Project Information							Requested Parameters												
Company Name: Clinton, East 001				Permit/Project #: AR0048836							CBOD(70), TSS(28)	NH3-N(15A)	DO (10), pH(23)	Fecal Collform (43)									
Address: P.O. Box 277 Clinton, AR 72031				Purchase Order #:																			
Telephone: 501-745-4320				Work Order #:																			
Contact: Mr. Isaac Keeling				Sampler Name(s): Phil Graham mckettakle																			
FAX: 501-745-2164				and Signature(s): [Signature] mckettakle																			
ESC Client Number: 495 (3X per week)																							
Sample Identification		Sample Collection				Sample Containers																	
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#														
Final Effluent	1402010233	2-11-14	8AM	24Hr. Comp	Wwater	Plastic	1/2 Gal	≤ 6 Deg C	1	X													
		2-12-14	8AM	24Hr. Comp	Wwater	Plastic	1 Liter	H2SO4	1		X												
		2-12-14	0850	Grab	Wwater	Plastic	1 Liter	≤ 6 Deg C	1			X											
		1	1	Grab	Wwater	Whirlpak	150 ml	Na2S2O3	1				X										
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Custody Seals:		Used?	Inact?												
[Signature] Phil Graham		2-3-14	8AM	mckettakle		2-12-14	0850	Regular <input checked="" type="checkbox"/> Special <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>												
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Were samples properly preserved:		Yes	No												
mckettakle		2-12-14	1320	mckettakle		2-12-14	1320	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>												
All samples cooled to ≤ 6 Deg with ice.										Flow Data		Field Test		Time		Analyst		Result		Result		Units	
Comments: * DO May to November only										Analyst: mck		pH: 0852 mck		7.6		7.6		mg/L					
										Time: 0454		DO: 0852 mck		10.7		10.2		mg/L					
										Reading: 0.736		Units: MBP		ECOL: 1325 mck									
										Chlorinated? Y N		Fecal Start: 1325 mck											

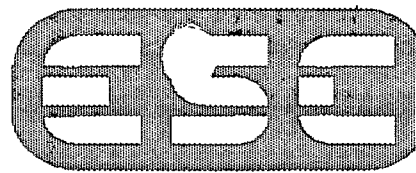
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ENVIRONMENTAL SERVICES

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## CHAIN OF CUSTODY

Phone 479-750-1170 Fax: 479-750-1172

Client Information				Project Information						Requested Parameters						
Company Name: Clinton East 001				Permit/Project #:		AR0048836				Chronic Bio-Monitoring (83.1)						
Address: P.O. Box 277 Clinton, AR 72031				Purchase Order #:												
Telephone: 501-745-4320				Work Order #:												
Contact: Mr. Isaac Keeling				Sampler Name(s):		m. Keeling										
FAX: 501-745-2164				and Signature(s):		m. Keeling										
ESC Client Number: 495 (Bio-monitoring)																
Sample Identification			Sample Collection				Sample Containers									
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#							
Final Effluent	1402010233	2-12-14	800	Composite	Wwater	Plastic	1 Gal	Cool ≤ 6° C	1	X						
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Custody Seals:								
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Used? <input checked="" type="checkbox"/> Intact? <input type="checkbox"/>								
Relinquished By: (Signature and Printed Name)		Date	Time	Received for Lab By: (Signature and Printed Name)		Date	Time	Turnaround: Regular <input checked="" type="checkbox"/> Special <input type="checkbox"/>								
Relinquished By: (Signature and Printed Name)		Date	Time	Received for Lab By: (Signature and Printed Name)		Date	Time	Were samples properly preserved: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
Comments:				Flow Data	Field Test	Time	Analyst	Result	Result	Units						
800603316483				Analyst:	pH:					S.U.						
				Time:												
				Reading:												
				Units:												
					Fecal Start:						This Document is Page ___ of ___					

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 Springdale, AR 72762  
 Tel. (479)750-1170 Fax (479)750-1172

Control Number: 1402010278	Composite Date: 02/13/14 - 02/14/14	Collected By: MCH/PHIL GRAHAM
Customer Name : CLINTON, EAST 001	Sample Time : 0830-0830 G 0840	Delivery By : MCH
Customer/Permit No. : 495 / AR0048836 001	Sample Type : COMP/GRAB WWATER	Work Order :
Report Date : 03/11/14	Sample From : FINAL EFFLUENT/BIO 3	Purchase Order :


### Laboratory Analysis

Analysis							Quality Assurance		
Date	Time	By	Parameter	Result	Notes	Quantity	Method	Precision % RPD	Accuracy % Recovery
02/14	0842	MCH	Dissolved Oxygen	9.6 mg/L		55.68 #/day	SM 18th 4500-O G	0.00	N/A *
02/18	1200	ACH	Ammonia Nitrogen	6.70 mg/L	(b)	38.86 #/day	1997 4500-NH3 G	0.00	96.0 *
02/14	0842	MCH	pH	7.4 S.U.			2000 4500 H+B	1.44	N/A *
02/17	1830	NTR	Phosphorous, Total (as P)	0.95 mg/L		5.51 #/day	EPA 365.3	1.53	92.0
02/18	1745	NTR	Solids, Total Suspended	6.00 mg/L		34.80 #/day	1997 2540 D	0.00	N/A *
02/14	1420	MCH	Coliform, Fecal	< 5 #/100M			1997 9222D	0.00	N/A
02/14	1420	MCH	E. COLI	< 5.00 #/100M		29.00 #/100M	HACH 10029		
02/14	1300	DWC	BOD, Carbonaceous	5.00 mg/L		29.00 #/day	2001 5210B	0.00	95.0 *
02/15	0645	NTR	Nitrate + Nitrite	0.97 mg/L		5.63 #/day	2000 4500-NO3 E	1.24	97.2 *
Flow				0.696000	MGD				

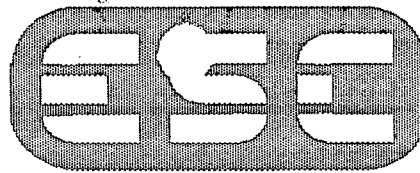
\* QA data shown is from a different sample or standard on the same date.  
 (b) Exceeds Permit Limits for Average Concentration

All equipment used is checked and/or calibrated daily. All NPDES testing is conducted in accordance with 40 CFR Part 136. A minimum of 10% spiked and duplicate samples is run on each parameter where applicable for Quality Assurance purposes. Quality Assurance Plan on file with Arkansas Department of Environmental Quality. Analysis time indicates the time of the start of the analytical batch in which the specific sample was included.

Signature \_\_\_\_\_

  
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 Little Rock, AR 72211 Little Rock, AR 72215  
 website: www.esclabs.com



Environmental Services Corporation, Inc.  
 Northwest Branch  
 1107 Century  
 Springdale, AR 72762

Phone: 501-221-2565 Fax: 501-221-1341

# CHAIN OF CUSTODY

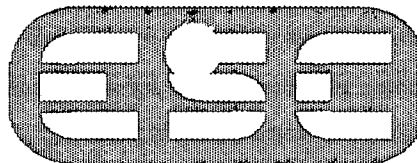
Phone 479-750-1170 Fax: 479-750-1172

Client Information				Project Information						Requested Parameters							
Company Name: Clinton, East 001				Permit/Project #: AR0048836						CBOD(70), TSS(28.) NH3-N(15.A) Fecal Coliform (43.)							
Address: P.O. Box 277 Clinton, AR 72031				Purchase Order #:													
Telephone: 501-745-4320				Work Order #:													
Contact: Mr. Isaac Keeling				Sampler Name(s): Phil Graham Mike Hester													
FAX: 501-745-2164				and Signature(s): Phil Graham Mike Hester													
ESC Client Number: 495 (3X per week)																	
Sample Identification		Sample Collection				Sample Containers											
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#								
Final Effluent	1402010213	2-13-14	8:30 AM	24Hr. Comp	Wwater	Plastic	1/2 Gal	Cool < 6° C	1	X							
		2-14-14	8:30 AM	24Hr. Comp	Wwater	Plastic	1 Liter	Cool < 6° C, H2SO4 to pH < 2	1	X							
		2-14-14	8:40 AM	Grab	Wwater	Whirlpak	150 mls	Cool < 10° C, Na2S2O3	1	X							
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Custody Seals:									
Phil Graham		2-13-14	8:50 AM	Mike Hester		2-14-14	8:40	Used? <input type="checkbox"/> Intact? <input type="checkbox"/>									
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Turnaround:									
Mike Hester		2-14-14	1415	Mike Hester		2-14-14	1415	Regular <input type="checkbox"/> Special <input type="checkbox"/>									
Relinquished By: (Signature and Printed Name)		Date	Time	Received for Lab By: (Signature and Printed Name)		Date	Time	Were samples properly preserved:									
Mike Hester		2-14-14	1415	Mike Hester		2-14-14	1415	Yes <input type="checkbox"/> No <input type="checkbox"/>									
Comments: * DO May to November only				Flow Data		Field Test		Time		Analyst		Result		Result		Units	
				Analyst: MCH		Grab pH: 8.2		Time: 0944		Analyst: MCH		Result: 7.4		Result: 7.4		S.U.	
				Time: 0944		Grab DO: 8.7		Reading: 0.696		Analyst: MCH		Result: 9.6		Result: 9.6		mg/L	
				Units: MGD		E.coli: 1420		Units: MCH		Fecal Start: 1420		MCH					
														This Document is Page ___ of ___			

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# CHAIN OF CUSTODY

Phone 479-750-1170 Fax: 479-750-1172

Client Information				Project Information						Requested Parameters						
Company Name: Clinton East 001				Permit/Project #: AR0048836		Chronic Bio-Monitoring (83.1)										
Address: P.O. Box 277 Clinton, AR 72031				Purchase Order #:												
Telephone: 501-745-4320				Work Order #:												
Contact: Mr. Isaac Keeling				Sampler Name(s): <i>Mike Hinkle</i>												
FAX: 501-745-2164				and Signature(s): <i>Mike Hinkle</i>												
ESC Client Number: 495 (Bio-monitoring)																
Sample Identification		Sample Collection				Sample Containers										
Identification	ESC Control #	Date	Time	Type	Matrix	Type	Volume	Preservative	#							
Final Effluent	<i>1402010278</i>	<i>2-14-14</i>	<i>0840</i>	Composite	Wwater	Plastic	1 Gal	Cool ≤ 6° C	1	X						
		<i>2-14-14</i>	<i>0840</i>													
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Custody Seals:								
Relinquished By: (Signature and Printed Name)		Date	Time	Received By: (Signature and Printed Name)		Date	Time	Used? <input checked="" type="checkbox"/> Intact? <input type="checkbox"/>								
Relinquished By: (Signature and Printed Name)		Date	Time	Received for Lab By: (Signature and Printed Name)		Date	Time	Turnaround: Regular <input checked="" type="checkbox"/> Special <input type="checkbox"/>								
<i>Mike Hinkle</i>		<i>2-14-14</i>	<i>1415</i>	<i>Mike Hinkle</i>		<i>2-14-14</i>	<i>1415</i>	Were samples properly preserved: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
Comments:				Flow Data	Field Test	Time	Analyst	Result	Result	Units						
<i>868115721354</i>				Analyst: <i>MB</i>	pH:		<i>MB</i>			S.U.						
				Time:												
				Reading:												
				Units: <i>MGD</i>												
				Fecal Start:							This Document is Page <i>1</i> of <i>1</i>					

JB

Directions

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
EPA Form No. 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: CLINTON, CITY OF-EAST WWTF

ADDRESS: P.O. BOX 277  
CLINTON, AR 72031

FACILITY: CLINTON EAST WW TREATMENT FACILITY

LOCATION: FACTORY ROAD  
CLINTON, AR 72031

ATTN: ISAAC KEELING, DIRECTOR

AR0048836	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
01/01/2014	03/31/2014

Environmental Services Company  
13715 W. Markham - 72211  
P.O. Box 55116  
Little Rock, AR 72115  
(501) 221-2565

001-QUARTERLY-CHRONIC WET TESTING  
External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Pass/Fail Static Renewal 7 Day Chronic Ceriodaphnia	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	QTYL	COMP
TGP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMPOS
Pass/Fail Statre 7Day Chronic Pimephales Promelas	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	QTYL	COMP
TGP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMPOS
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	QTYL	COMP
TLP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMPOS
Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic	SAMPLE MEASUREMENT	*****	*****	*****	*****	0	*****	0	0	QTYL	COMP
TLP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	pass=0/fail=1		Quarterly	COMPOS
NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	*****	100	*****	%	0	QTYL	COMP
TOP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMPOS
NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	*****	100	*****	%	0	QTYL	COMP
TOP6C 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMPOS
NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia	SAMPLE MEASUREMENT	*****	*****	*****	*****	100	*****	%	0	QTYL	COMP
TPP3B 10 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE		DATE
		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		
TYPED OR PRINTED		AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

IF THE NOEC VALUE IS LESS THAN THE CRITICAL DILUTION, REPORT "1"; OTHERWISE, REPORT "0". SEE PART II, CONDITION NO. 11 (WET). 71-00018

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

Form Approved  
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

NAME: CLINTON, CITY OF-EAST WWTF  
ADDRESS: P.O. BOX 277  
CLINTON, AR 72031

FACILITY: CLINTON EAST WW TREATMENT FACILITY

LOCATION: FACTORY ROAD  
CLINTON, AR 72031

ATTN: ISAAC KEELING, DIRECTOR

AR0048836	TX1-Q
PERMIT NUMBER	DISCHARGE NUMBER
MONITORING PERIOD	
MM/DD/YYYY	MM/DD/YYYY
01/01/2014	03/31/2014

Environmental Services Company  
13715 W. Markham - 72211  
P.O. Box 90116 Little Rock, AR 72115  
(501) 221-2565

001-QUARTERLY-CHRONIC WET TESTING  
External Outfall

No Discharge

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas	SAMPLE MEASUREMENT	*****	*****	*****	*****	100	*****	%	0	QITLY	COMP
TPP6C 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMPOS
Coef Of Var Statre 7Day Chronic Ceriodaphnia	SAMPLE MEASUREMENT	*****	*****	*****	*****	100	*****	%	0	QITLY	COMP
TQP3B 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMPOS
Coef Of Var Statre 7Day Chronic Pimephales	SAMPLE MEASUREMENT	*****	*****	*****	*****	27.5	*****	%	0	QITLY	COMP
TQP6C 1 0 Effluent Gross	PERMIT REQUIREMENT	*****	*****	*****	*****	Req. Mon. 7 DA AVG	*****	%		Quarterly	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE		DATE
		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		
TYPED OR PRINTED		AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

IF THE NOEC VALUE IS LESS THAN THE CRITICAL DILUTION, REPORT "1"; OTHERWISE, REPORT "0". SEE PART II, CONDITION NO. 11 (WET). 71-00018

# CETIS Test Evaluation Report

Report Date: 07 Mar-14 10:20 ( 1 of 2)  
 Test Code: CD 14-042-0190 | 07-9630-8042

<b>Facility:</b> ESC-LR - Clinton - East <b>Sample Site:</b> <b>Sample Code:</b> 14-042-0190 <b>Sample Date:</b> 10 Feb-14 08:24 <b>Sample Age:</b> 29h (1.4 °C) <b>Project:</b> WET Quarterly Compliance Test (1Q)	<b>Test Name:</b> Ceriodaphnia 7-d Survival and Reproduction Test <b>Organism:</b> Ceriodaphnia dubia (Water Flea) <b>Protocol:</b> EPA/821/R-02-013 (2002) <b>Start Date:</b> 11 Feb-14 13:40 <b>End Date:</b> 17 Feb-14 12:20 <b>Duration:</b> 5d 23h <b>Organism Age:</b> < 24
<b>Permitee:</b> Environmental Services Company <b>Address:</b> 13715 W. Markham Street Little Rock, AR 72211  <b>Contact:</b> Ms. Debbie Woosley <b>Phone:</b> 501-221-2565, 501-221-1341(fax) <b>Email:</b>	<b>Laboratory:</b> Environmental Testing and Consulting, Inc. <b>Address:</b> 2790 Whitten Road Memphis, TN 38133  <b>Contact:</b> Connie Cook, Lab Supervisor <b>Phone:</b> 901-213-2454 <b>Email:</b> ccook@etcmemphis.com

Chronic Toxicity Evaluation					
Endpoint	Parameter	C-%	IWC	Pass/Fail	Method
Reproduction	NOEL/LOEL	100/>100	99.9	Pass	Dunnett Multiple Comparison Test

Test Acceptability Criteria				
Endpoint	Attribute	Test Stat	Limits	Pass/Fail
6d Survival Rate	Control CV	0.35	N/A - 0.4	Pass
6d Survival Rate	Control Resp	0.9	0.799 - N/A	Pass
Reproduction	Control CV	0.28	N/A - 0.4	Pass
Reproduction	Control Resp	15	15 - N/A	Pass

**CETIS Test Evaluation Report**

Report Date: 07 Mar-14 10:20 ( 2 of 2)

Test Code: CD 14-042-0190 | 07-9630-8042

<b>6d Survival Rate Summary</b>											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Water	10	0.9	0.78	1	0	1	0.1	0.32	35.0%	0.0%
32		10	1	1	1	1	1	0	0	0.0%	-11.0%
42		10	1	1	1	1	1	0	0	0.0%	-11.0%
56		10	1	1	1	1	1	0	0	0.0%	-11.0%
75		10	1	1	1	1	1	0	0	0.0%	-11.0%
100		10	1	1	1	1	1	0	0	0.0%	-11.0%

<b>Reproduction Summary</b>											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Water	10	15	14	17	6	19	1.3	4.2	28.0%	0.0%
32		10	15	14	17	8	21	1.4	4.3	28.0%	-0.66%
42		10	16	15	17	11	18	0.8	2.5	16.0%	-3.3%
56		10	15	13	16	9	21	1.3	4	27.0%	3.3%
75		10	16	15	17	9	20	1	3.3	21.0%	-3.9%
100		10	16	14	17	7	20	1.3	4.2	27.0%	-2.0%

**CETIS Summary Report**

Report Date: 07 Mar-14 10:20 (p 1 of 1)  
 Test Code: CD 14-042-0190 | 07-9630-8042

**Ceriodaphnia 7-d Survival and Reproduction Test** Environmental Testing and Consulting, Inc.

Batch ID: 00-7736-4418	Test Type: Reproduction-Survival (7d)	Analyst: Ava Davis
Start Date: 11 Feb-14 13:40	Protocol: EPA/821/R-02-013 (2002)	Diluent: Perrier Water
Ending Date: 17 Feb-14 12:20	Species: Ceriodaphnia dubia	Brine: Not Applicable
Duration: 5d 23h	Source: In-House Culture	Age: < 24

Sample ID: 14-7504-7595	Code: 14-042-0190	Client: Environmental Services Company
Sample Date: 10 Feb-14 08:24	Material: POTW Effluent	Project: WET Quarterly Compliance Test (1Q)
Receive Date: 11 Feb-14 08:40	Source: ESC-LR - Clinton - East (AR0048836)	
Sample Age: 29h (1.4 °C)	Station:	

**Comparison Summary**

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
15-5229-8531	6d Survival Rate	100	>100	NA	NA	1	Fisher Exact/Bonferroni-Holm Test
01-8969-1996	Reproduction	100	>100	NA	25.7%	1	Dunnnett Multiple Comparison Test

**Test Acceptability**

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
15-5229-8531	6d Survival Rate	Control CV	0.35	NL - 0.4	Yes	Passes Acceptability Criteria
01-8969-1996	Reproduction	Control CV	0.28	NL - 0.4	Yes	Passes Acceptability Criteria
15-5229-8531	6d Survival Rate	Control Resp	0.9	0.799 - NL	Yes	Passes Acceptability Criteria
01-8969-1996	Reproduction	Control Resp	15	15 - NL	Yes	Passes Acceptability Criteria

**6d Survival Rate Summary**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Water	10	0.9	0.67	1	0	1	0.1	0.32	35.0%	0.0%
32		10	1	1	1	1	1	0	0	0.0%	-11.0%
42		10	1	1	1	1	1	0	0	0.0%	-11.0%
56		10	1	1	1	1	1	0	0	0.0%	-11.0%
75		10	1	1	1	1	1	0	0	0.0%	-11.0%
100		10	1	1	1	1	1	0	0	0.0%	-11.0%

**Reproduction Summary**

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Water	10	15	12	18	6	19	1.3	4.2	28.0%	0.0%
32		10	15	12	18	8	21	1.4	4.3	28.0%	-0.66%
42		10	16	14	18	11	18	0.8	2.5	16.0%	-3.3%
56		10	15	12	18	9	21	1.3	4	27.0%	3.3%
75		10	16	13	18	9	20	1	3.3	21.0%	-3.9%
100		10	16	12	19	7	20	1.3	4.2	27.0%	-2.0%

**6d Survival Rate Detail**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Lab Water	0	1	1	1	1	1	1	1	1	1
32		1	1	1	1	1	1	1	1	1	1
42		1	1	1	1	1	1	1	1	1	1
56		1	1	1	1	1	1	1	1	1	1
75		1	1	1	1	1	1	1	1	1	1
100		1	1	1	1	1	1	1	1	1	1

**Reproduction Detail**

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Lab Water	6	12	15	16	19	12	16	19	19	18
32		19	17	16	12	12	17	8	21	11	20
42		14	11	18	14	13	18	16	18	18	17
56		18	17	21	12	11	18	10	15	16	9
75		17	14	16	14	20	18	16	9	20	14
100		11	14	13	16	19	7	20	18	18	19



# CETIS Measurement Report

Report Date: 07 Mar-14 10:20 (p 1 of 8)

Test Code: CD 14-042-0190 | 07-9630-8042

Ceriodaphnia 7-d Survival and Reproduction Test		Environmental Testing and Consulting, Inc.	
Batch ID: 00-7736-4418	Test Type: Reproduction-Survival (7d)	Analyst: Ava Davis	
Start Date: 11 Feb-14 13:40	Protocol: EPA/821/R-02-013 (2002)	Diluent: Perrier Water	
Ending Date: 17 Feb-14 12:20	Species: Ceriodaphnia dubia	Brine: Not Applicable	
Duration: 5d 23h	Source: In-House Culture	Age: < 24	
Sample ID: 14-7504-7595	Code: 14-042-0190	Client: Environmental Services Company	
Sample Date: 10 Feb-14 08:24	Material: POTW Effluent	Project: WET Quarterly Compliance Test (1Q)	
Receive Date: 11 Feb-14 08:40	Source: ESC-LR - Clinton - East (AR0048836)		
Sample Age: 29h (1.4 °C)	Station:		

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:20 (p 2 of 8)

Test Code: CD 14-042-0190 | 07-9630-8042

Ceriodaphnia 7-d Survival and Reproduction Test				Environmental Testing and Consulting, Inc.			
<b>Alkalinity (CaCO3)-mg/L</b>							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	61				
0	Lab Water	2	60				
0	Lab Water	3	61				
0	Lab Water	4	62				
0	Lab Water	5	60				
0	Lab Water	6	59				
0	Lab Water	7	63				
<b>Total Residual Chlorine-mg/L</b>							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	0				
100			0				
0	Lab Water	2	0				
100			0				
0	Lab Water	3	0				
100			0				
0	Lab Water	4	0				
100			0				
0	Lab Water	5	0				
100			0				
0	Lab Water	6	0				
100			0				
0	Lab Water	7	0				
100			0				
<b>Conductivity-µS/cm</b>							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	180				
100			164				
0	Lab Water	2	179				
100			163				
0	Lab Water	3	180				
100			197				
0	Lab Water	4	180				
100			182				
0	Lab Water	5	182				
100			189				
0	Lab Water	6	180				
100			211				
0	Lab Water	7	176				
100			205				

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:20 (p 3 of 8)

Test Code: CD 14-042-0190 | 07-9630-8042

Ceriodaphnia 7-d Survival and Reproduction Test				Environmental Testing and Consulting, Inc.			
Final Dissolved Oxygen-mg/L							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	8.3				
32			8.2				
42			8.2				
56			8.2				
75			8.1				
100			8.1				
0	Lab Water	2	8.8				
32			8.5				
42			8.4				
56			8.3				
75			8.2				
100			8.2				
0	Lab Water	3	8.4				
32			8.4				
42			8.3				
56			8.4				
75			8.4				
100			8.3				
0	Lab Water	4	8				
32			8				
42			8				
56			7.9				
75			7.9				
100			7.9				
0	Lab Water	5	8				
32			7.9				
42			7.9				
56			7.9				
75			7.9				
100			7.9				
0	Lab Water	6	7.8				
32			8				
42			8.1				
56			8.1				
75			8.2				
100			8.2				

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:20 (p 4 of 8)

Test Code: CD 14-042-0190 | 07-9630-8042

Ceriodaphnia 7-d Survival and Reproduction Test						Environmental Testing and Consulting, Inc.	
Initial Dissolved Oxygen-mg/L							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	8.6				
32			8.6				
42			8.8				
56			8.7				
75			8.8				
100			8.6				
0	Lab Water	2	8.5				
32			8.9				
42			9.1				
56			9.3				
75			9.6				
100			9.7				
0	Lab Water	3	9				
32			8.9				
42			8.9				
56			9.1				
75			9.5				
100			10				
0	Lab Water	4	8.9				
32			9				
42			8.6				
56			8.9				
75			8.9				
100			8.9				
0	Lab Water	5	8.6				
32			8.5				
42			8.4				
56			8.6				
75			8.6				
100			8.6				
0	Lab Water	6	7.8				
32			8.4				
42			8.7				
56			8.9				
75			9.2				
100			10				
0	Lab Water	7	7.9				
32			8.4				
42			8.7				
56			8.9				
75			9.3				
100			9.9				
Hardness (CaCO3)-mg/L							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	90				
0	Lab Water	2	91				
0	Lab Water	3	89				
0	Lab Water	4	92				
0	Lab Water	5	93				
0	Lab Water	6	90				
0	Lab Water	7	92				

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:20 (p 5 of 8)

Test Code: CD 14-042-0190 | 07-9630-8042

Ceriodaphnia 7-d Survival and Reproduction Test				Environmental Testing and Consulting, Inc.			
Final pH-Units							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	7.9				
32			7.8				
42			7.9				
56			7.9				
75			7.8				
100			7.8				
0	Lab Water	2	7.9				
32			7.9				
42			7.8				
56			7.8				
75			7.8				
100			7.7				
0	Lab Water	3	7.5				
32			7.5				
42			7.6				
56			7.5				
75			7.6				
100			7.6				
0	Lab Water	4	7.5				
32			7.7				
42			7.9				
56			7.9				
75			8				
100			7.8				
0	Lab Water	5	7.4				
32			7.6				
42			7.7				
56			7.7				
75			7.8				
100			7.8				
0	Lab Water	6	7.7				
32			7.6				
42			7.6				
56			7.6				
75			7.5				
100			7.5				

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:20 (p 6 of 8)

Test Code: CD 14-042-0190 | 07-9630-8042

Ceriodaphnia 7-d Survival and Reproduction Test				Environmental Testing and Consulting, Inc.			
Initial pH-Units							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	7.5				
32			7.5				
42			7.6				
56			7.6				
75			7.6				
100			7.6				
0	Lab Water	2	7.6				
32			7.5				
42			7.4				
56			7.4				
75			7.3				
100			7.2				
0	Lab Water	3	7.2				
32			7.4				
42			7.4				
56			7.4				
75			7.3				
100			7.3				
0	Lab Water	4	7.1				
32			7.6				
42			7.6				
56			7.5				
75			7.6				
100			7.6				
0	Lab Water	5	7.6				
32			7.6				
42			7.5				
56			7.9				
75			7.9				
100			7.9				
0	Lab Water	6	7.5				
32			7.4				
42			7.3				
56			7.3				
75			7.2				
100			7.2				
0	Lab Water	7	8.1				
32			7.9				
42			7.8				
56			7.7				
75			7.6				
100			7.5				

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:20 (p 7 of 8)

Test Code: CD 14-042-0190 | 07-9630-8042

Ceriodaphnia 7-d Survival and Reproduction Test				Environmental Testing and Consulting, Inc.			
Final Temperature-°C							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0			Lab Water	2	23		
32	23						
42	23						
56	23						
75	23						
100	23						
0	Lab Water	3			23		
32			23				
42			23				
56			23				
75			23				
100			23				
0			Lab Water	4	23		
32	23						
42	23						
56	23						
75	23						
100	23						
0	Lab Water	5			23		
32			23				
42			23				
56			23				
75			23				
100			23				
0			Lab Water	6	23		
32	23						
42	23						
56	23						
75	23						
100	23						

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:20 (p 8 of 8)

Test Code: CD 14-042-0190 | 07-9630-8042

Ceriodaphnia 7-d Survival and Reproduction Test				Environmental Testing and Consulting, Inc.			
Initial Temperature-°C							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0			Lab Water	2	23		
32	23						
42	23						
56	23						
75	23						
100	23						
0	Lab Water	3			23		
32			23				
42			23				
56			23				
75			23				
100			23				
0			Lab Water	4	23		
32	23						
42	23						
56	23						
75	23						
100	23						
0	Lab Water	5			23		
32			23				
42			23				
56			23				
75			23				
100			23				
0			Lab Water	6	23		
32	23						
42	23						
56	23						
75	23						
100	23						
0	Lab Water	7			23		
32			23				
42			23				
56			23				
75			23				
100			23				



**CETIS Test Evaluation Report**

**Report Date:** 07 Mar-14 10:21 (1 of 2)

**Test Code:** FH 14-042-0190 | 05-3423-9209

<b>Facility:</b> ESC-LR - Clinton - East <b>Sample Site:</b> <b>Sample Code:</b> 14-042-0190 <b>Sample Date:</b> 10 Feb-14 08:24 <b>Sample Age:</b> 28h (1.4 °C) <b>Project:</b> WET Quarterly Compliance Test (1Q)	<b>Test Name:</b> Fathead Minnow 7-d Larval Survival and Growth Test <b>Organism:</b> Pimephales promelas (Fathead Minnow) <b>Protocol:</b> EPA/821/R-02-013 (2002) <b>Start Date:</b> 11 Feb-14 12:50 <b>End Date:</b> 18 Feb-14 13:00 <b>Duration:</b> 7d 0h <b>Organism Age:</b> < 24
<b>Permitee:</b> Environmental Services Company <b>Address:</b> 13715 W. Markham Street Little Rock, AR 72211  <b>Contact:</b> Ms. Debbie Woosley <b>Phone:</b> 501-221-2565, 501-221-1341(fax) <b>Email:</b>	<b>Laboratory:</b> Environmental Testing and Consulting, Inc. <b>Address:</b> 2790 Whitten Road Memphis, TN 38133  <b>Contact:</b> Connie Cook, Lab Supervisor <b>Phone:</b> 901-213-2454 <b>Email:</b> ccook@etcmemphis.com

Chronic Toxicity Evaluation					
Endpoint	Parameter	C-%	IWC	Pass/Fail	Method
7d Survival Rate	NOEL/LOEL	100/>100	99.9	Pass	Dunnett Multiple Comparison Test
Mean Dry Weight-mg	NOEL/LOEL	100/>100	99.9	Pass	Dunnett Multiple Comparison Test

Test Acceptability Criteria				
Endpoint	Attribute	Test Stat	Limits	Pass/Fail
7d Survival Rate	Control CV	0.1	N/A - 0.4	Pass
7d Survival Rate	Control Resp	0.88	0.8 - N/A	Pass
Mean Dry Weight-mg	Control CV	0.1	N/A - 0.4	Pass
Mean Dry Weight-mg	Control Resp	0.27	0.25 - N/A	Pass

**CETIS Test Evaluation Report**

Report Date: 07 Mar-14 10:21 (2 of 2)

Test Code: FH 14-042-0190 | 05-3423-9209

<b>7d Survival Rate Summary</b>											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Water	5	0.88	0.84	0.91	0.75	1	0.04	0.088	10.0%	0.0%
32		5	0.98	0.95	1	0.88	1	0.025	0.056	5.7%	-11.0%
42		5	0.9	0.86	0.94	0.75	1	0.047	0.1	12.0%	-2.9%
56		5	0.83	0.77	0.88	0.63	1	0.064	0.14	17.0%	5.7%
75		5	0.95	0.91	0.99	0.75	1	0.05	0.11	12.0%	-8.6%
100		5	0.85	0.81	0.89	0.75	1	0.047	0.1	12.0%	2.9%

<b>Mean Dry Weight-mg Summary</b>											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Water	5	0.27	0.26	0.28	0.23	0.29	0.012	0.027	10.0%	0.0%
32		5	0.25	0.24	0.26	0.22	0.29	0.012	0.027	11.0%	7.4%
42		5	0.26	0.24	0.27	0.21	0.3	0.017	0.037	15.0%	5.6%
56		5	0.25	0.25	0.26	0.22	0.29	0.01	0.023	8.9%	5.6%
75		5	0.26	0.25	0.27	0.23	0.3	0.014	0.031	12.0%	2.8%
100		5	0.26	0.25	0.27	0.25	0.29	0.0073	0.016	6.3%	3.7%

**CETIS Summary Report**

Report Date: 07 Mar-14 10:21 (p 1 of 1)  
 Test Code: FH 14-042-0190 | 05-3423-9209

**Fathead Minnow 7-d Larval Survival and Growth Test** Environmental Testing and Consulting, Inc.

Batch ID: 18-9620-7635	Test Type: Growth-Survival (7d)	Analyst: Ava Davis
Start Date: 11 Feb-14 12:50	Protocol: EPA/821/R-02-013 (2002)	Diluent: Perrier Water
Ending Date: 18 Feb-14 13:00	Species: Pimephales promelas	Brine: Not Applicable
Duration: 7d 0h	Source: Aquatox, AR	Age: < 24

Sample ID: 14-7504-7595	Code: 14-042-0190	Client: Environmental Services Company
Sample Date: 10 Feb-14 08:24	Material: POTW Effluent	Project: WET Quarterly Compliance Test (1Q)
Receive Date: 11 Feb-14 08:40	Source: ESC-LR - Clinton - East (AR0048836)	
Sample Age: 28h (1.4 °C)	Station:	

Comparison Summary							
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
05-5166-6600	7d Survival Rate	100	>100	NA	18.9%	1	Dunnett Multiple Comparison Test
00-2008-4267	Mean Dry Weight-mg	100	>100	NA	15.2%	1	Dunnett Multiple Comparison Test

Test Acceptability						
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
05-5166-6600	7d Survival Rate	Control CV	0.1	NL - 0.4	Yes	Passes Acceptability Criteria
00-2008-4267	Mean Dry Weight-mg	Control CV	0.1	NL - 0.4	Yes	Passes Acceptability Criteria
05-5166-6600	7d Survival Rate	Control Resp	0.88	0.8 - NL	Yes	Passes Acceptability Criteria
00-2008-4267	Mean Dry Weight-mg	Control Resp	0.27	0.25 - NL	Yes	Passes Acceptability Criteria

7d Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Water	5	0.88	0.77	0.98	0.75	1	0.04	0.088	10.0%	0.0%
32		5	0.98	0.91	1	0.88	1	0.025	0.056	5.7%	-11.0%
42		5	0.9	0.77	1	0.75	1	0.047	0.1	12.0%	-2.9%
56		5	0.83	0.65	1	0.63	1	0.064	0.14	17.0%	5.7%
75		5	0.95	0.81	1	0.75	1	0.05	0.11	12.0%	-8.6%
100		5	0.85	0.72	0.98	0.75	1	0.047	0.1	12.0%	2.9%

Mean Dry Weight-mg Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Water	5	0.27	0.24	0.3	0.23	0.29	0.012	0.027	10.0%	0.0%
32		5	0.25	0.22	0.28	0.22	0.29	0.012	0.027	11.0%	7.4%
42		5	0.26	0.21	0.3	0.21	0.3	0.017	0.037	15.0%	5.6%
56		5	0.25	0.23	0.28	0.22	0.29	0.01	0.023	8.9%	5.6%
75		5	0.26	0.22	0.3	0.23	0.3	0.014	0.031	12.0%	2.8%
100		5	0.26	0.24	0.28	0.25	0.29	0.0073	0.016	6.3%	3.7%

7d Survival Rate Detail						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Water	0.75	0.88	0.88	0.88	1
32		1	0.88	1	1	1
42		1	1	0.88	0.75	0.88
56		0.88	0.63	0.88	1	0.75
75		0.75	1	1	1	1
100		0.75	1	0.88	0.88	0.75

Mean Dry Weight-mg Detail						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Water	0.23	0.29	0.29	0.26	0.29
32		0.22	0.29	0.25	0.26	0.22
42		0.29	0.24	0.21	0.3	0.24
56		0.26	0.25	0.22	0.29	0.25
75		0.25	0.29	0.23	0.3	0.25
100		0.29	0.25	0.25	0.25	0.26

# CETIS Measurement Report

Report Date: 07 Mar-14 10:21 (p 1 of 8)

Test Code: FH 14-042-0190 | 05-3423-9209

Fathead Minnow 7-d Larval Survival and Growth Test		Environmental Testing and Consulting, Inc.			
Batch ID:	18-9620-7635	Test Type:	Growth-Survival (7d)	Analyst:	Ava Davis
Start Date:	11 Feb-14 12:50	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Perrier Water
Ending Date:	18 Feb-14 13:00	Species:	Pimephales promelas	Brine:	Not Applicable
Duration:	7d 0h	Source:	Aquatox, AR	Age:	< 24
Sample ID:	14-7504-7595	Code:	14-042-0190	Client:	Environmental Services Company
Sample Date:	10 Feb-14 08:24	Material:	POTW Effluent	Project:	WET Quarterly Compliance Test (1Q)
Receive Date:	11 Feb-14 08:40	Source:	ESC-LR - Clinton - East (AR0048836)		
Sample Age:	28h (1.4 °C)	Station:			

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:21 (p 2 of 8)

Test Code: FH 14-042-0190 | 05-3423-9209

**Fathead Minnow 7-d Larval Survival and Growth Test** **Environmental Testing and Consulting, Inc.**

Alkalinity (CaCO3)-mg/L							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	61				
0	Lab Water	2	60				
0	Lab Water	3	61				
0	Lab Water	4	62				
0	Lab Water	5	60				
0	Lab Water	6	59				
0	Lab Water	7	63				
Total Residual Chlorine-mg/L							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	0				
100			0				
0	Lab Water	2	0				
100			0				
0	Lab Water	3	0				
100			0				
0	Lab Water	4	0				
100			0				
0	Lab Water	5	0				
100			0				
0	Lab Water	6	0				
100			0				
0	Lab Water	7	0				
100			0				
Conductivity-µS/cm							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	180				
100			164				
0	Lab Water	2	179				
100			163				
0	Lab Water	3	180				
100			197				
0	Lab Water	4	180				
100			182				
0	Lab Water	5	182				
100			189				
0	Lab Water	6	180				
100			211				
0	Lab Water	7	176				
100			205				

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:21 (p 3 of 8)

Test Code: FH 14-042-0190 | 05-3423-9209

Fathead Minnow 7-d Larval Survival and Growth Test				Environmental Testing and Consulting, Inc.			
Final Dissolved Oxygen-mg/L							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	7.6				
32			7.8				
42			7.8				
56			7.7				
75			7.8				
100			7.7				
0	Lab Water	2	7.4				
32			8.1				
42			8.2				
56			8.1				
75			8.2				
100			8.2				
0	Lab Water	3	7.9				
32			8				
42			7.9				
56			7.9				
75			7.8				
100			7.8				
0	Lab Water	4	7.8				
32			7.8				
42			7.9				
56			7.8				
75			7.8				
100			7.8				
0	Lab Water	5	7.4				
32			7.3				
42			7				
56			6.6				
75			6.8				
100			6.9				
0	Lab Water	6	7.5				
32			7.6				
42			7.4				
56			7.5				
75			7.5				
100			7				
0	Lab Water	7	7.3				
32			7.4				
42			7.3				
56			7.3				
75			7.2				
100			7.2				

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:21 (p 4 of 8)

Test Code: FH 14-042-0190 | 05-3423-9209

Fathead Minnow 7-d Larval Survival and Growth Test				Environmental Testing and Consulting, Inc.			
Initial Dissolved Oxygen-mg/L							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	8.6				
32			8.6				
42			8.8				
56			8.7				
75			8.8				
100			8.6				
0	Lab Water	2	8.5				
32			8.9				
42			9.1				
56			9.3				
75			9.6				
100			9.7				
0	Lab Water	3	9				
32			8.9				
42			8.9				
56			9.1				
75			9.5				
100			10				
0	Lab Water	4	8.9				
32			9				
42			8.6				
56			8.9				
75			8.9				
100			8.9				
0	Lab Water	5	8.6				
32			8.5				
42			8.4				
56			8.6				
75			8.6				
100			8.6				
0	Lab Water	6	7.8				
32			8.4				
42			8.7				
56			8.9				
75			9.2				
100			10				
0	Lab Water	7	7.9				
32			8.4				
42			8.7				
56			8.9				
75			9.3				
100			9.9				
Hardness (CaCO3)-mg/L							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	90				
0	Lab Water	2	91				
0	Lab Water	3	89				
0	Lab Water	4	92				
0	Lab Water	5	93				
0	Lab Water	6	90				
0	Lab Water	7	92				

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:21 (p 5 of 8)

Test Code: FH 14-042-0190 | 05-3423-9209

Fathead Minnow 7-d Larval Survival and Growth Test Environmental Testing and Consulting, Inc.

Final pH-Units							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	7.4				
32			7.5				
42			7.5				
56			7.6				
75			7.5				
100			7.5				
0	Lab Water	2	7.4				
32			7.4				
42			7.5				
56			7.4				
75			7.5				
100			7.4				
0	Lab Water	3	7.3				
32			7.5				
42			7.5				
56			7.5				
75			7.6				
100			7.6				
0	Lab Water	4	7.5				
32			7.6				
42			7.6				
56			7.6				
75			7.6				
100			7.6				
0	Lab Water	5	7.3				
32			7.3				
42			7.3				
56			7.3				
75			7.2				
100			7.2				
0	Lab Water	6	7.4				
32			7.4				
42			7.4				
56			7.4				
75			7.4				
100			7.4				
0	Lab Water	7	7.3				
32			7.4				
42			7.4				
56			7.5				
75			7.5				
100			7.4				



**CETIS Measurement Report**

Report Date: 07 Mar-14 10:21 (p 6 of 8)

Test Code: FH 14-042-0190 | 05-3423-9209

Fathead Minnow 7-d Larval Survival and Growth Test

Environmental Testing and Consulting, Inc.

Initial pH-Units							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	7.5				
32			7.5				
42			7.6				
56			7.6				
75			7.6				
100			7.6				
0	Lab Water	2	7.6				
32			7.5				
42			7.4				
56			7.4				
75			7.3				
100			7.2				
0	Lab Water	3	7.2				
32			7.4				
42			7.4				
56			7.4				
75			7.3				
100			7.3				
0	Lab Water	4	7.1				
32			7.6				
42			7.6				
56			7.5				
75			7.6				
100			7.6				
0	Lab Water	5	7.6				
32			7.6				
42			7.5				
56			7.9				
75			7.9				
100			7.9				
0	Lab Water	6	7.5				
32			7.4				
42			7.3				
56			7.3				
75			7.2				
100			7.2				
0	Lab Water	7	8.1				
32			7.9				
42			7.8				
56			7.7				
75			7.6				
100			7.5				

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:21 (p 7 of 8)

Test Code: FH 14-042-0190 | 05-3423-9209

Fathead Minnow 7-d Larval Survival and Growth Test				Environmental Testing and Consulting, Inc.			
Final Temperature-°C							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	2	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	3	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	4	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	5	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	6	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	7	23				
32			23				
42			23				
56			23				
75			23				
100			23				

**CETIS Measurement Report**

Report Date: 07 Mar-14 10:21 (p 8 of 8)

Test Code: FH 14-042-0190 | 05-3423-9209

Fathead Minnow 7-d Larval Survival and Growth Test				Environmental Testing and Consulting, Inc.			
Initial Temperature-°C							
C-%	Control Type	Reading Time	Measure	QA	Diff-%	Inst ID	Analyst Notes
0	Lab Water	1	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	2	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	3	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	4	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	5	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	6	23				
32			23				
42			23				
56			23				
75			23				
100			23				
0	Lab Water	7	23				
32			23				
42			23				
56			23				
75			23				
100			23				



# ENVIRONMENTAL TESTING & CONSULTING, INC.

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"A Laboratory Management Partner"

03341

Environmental Services Co.Inc.

Ms. Joyce Brown

13715 W. Markham St.

Little Rock , AR 72211

Project Clinton - Bioassay  
Information :

Report Date : 3/7/2014

Report Number : 14-042-0190

## REPORT OF ANALYSIS

Received : 2/11/2014

Lab No : 92858

Sample ID : Outfall 001 - 1402010186

Matrix: Aqueous

Sampled: 2/10/2014 8:24

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Alkalinity (as CaCO3)	38	mg/L	1	1	02/18/14 08:40	CJR	2320B-2011
Total Calcium	5.83	mg/L	0.100	1	02/20/14 21:42	BKN	EPA-200.7
Hardness as CaCO3(SM-2340B)	21.4	mg/L	0.100	1	02/18/14 18:26		EPA-200.7
Total Magnesium	1.67	mg/L	0.100	1	02/18/14 18:26	BKN	EPA-200.7
Carbonate	<2	mg/L	2	1	02/18/14 08:40	CJR	2320B-2011
Bicarbonate (as CaCO3)	38	mg/L	1	1	02/18/14 08:40	CJR	2320B-2011

Lab No : 93412

Sample ID : Outfall 001 - 1402010233

Matrix: Aqueous

Sampled: 2/12/2014 8:50

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Method
Alkalinity (as CaCO3)	45	mg/L	1	1	02/18/14 08:40	CJR	2320B-2011
Total Calcium	5.98	mg/L	0.100	1	02/20/14 21:46	BKN	EPA-200.7
Hardness as CaCO3(SM-2340B)	22.1	mg/L	0.100	1	02/18/14 18:37		EPA-200.7
Total Magnesium	1.75	mg/L	0.100	1	02/18/14 18:37	BKN	EPA-200.7
Carbonate	<2	mg/L	2	1	02/18/14 08:40	CJR	2320B-2011
Bicarbonate (as CaCO3)	45	mg/L	1	1	02/18/14 08:40	CJR	2320B-2011

Qualifiers/  
Definitions

\*

MQL

Outside QC limit  
Method Quantitation Limit

DF

Dilution Factor



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# ENVIRONMENTAL TESTING & CONSULTING, INC.

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Environmental Services Co.Inc.

Ms. Joyce Brown

13715 W. Markham St.

Little Rock , AR 72211

Project Clinton - Bioassay  
Information :

Report Date : 3/7/2014

Report Number : 14-042-0190

## REPORT OF ANALYSIS

Received : 2/11/2014

Lab No : 93838

Matrix: Aqueous

Sample ID : Outfall 001 - 1402010278

Sampled: 2/14/2014 8:40

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Method
Alkalinity (as CaCO3)	49	mg/L	1	1	02/18/14 08:40	CJR	2320B-2011
Total Calcium	6.26	mg/L	0.100	1	02/20/14 21:08	BKN	EPA-200.7
Hardness as CaCO3(SM-2340B)	22.7	mg/L	0.100	1	02/18/14 18:40		EPA-200.7
Total Magnesium	1.72	mg/L	0.100	1	02/18/14 18:40	BKN	EPA-200.7
Carbonate	<2	mg/L	2	1	02/18/14 08:40	CJR	2320B-2011
Bicarbonate (as CaCO3)	49	mg/L	1	1	02/18/14 08:40	CJR	2320B-2011

### Qualifiers/ Definitions

\*

ML

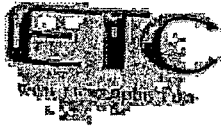
Outside QC limit  
Method Quantitation Limit

DF

Dilution Factor

Additional Toxicity Test Information

1. Methods/Instrumentation used in chemical analysis:
  - Dissolved oxygen: 4500-O G YSI MODEL - 58
  - pH: 4500-H + B JENCO METER 6072
  - Temperature: 2550 B JENCO METER 6072
  - Conductivity: 2510 B CORNING METER 441
  - Alkalinity: 2320 B
  - Hardness: 200.7
  - Total Residual Chlorine: 4500-Cl G - REPORTED VALUE OF "0" INDICATES RESULT BELOW DETECTION LIMIT OF 0.02 mg/L
  - EPA Acute/Chronic Manual Edition and Date: EPA-821-R-02-012
  - OCT 2002 (Fifth edition)
2. Laboratory
  - Temperature: Average - 25 C Range - 23 - 26
  - Light Cycle: 16 hours light/ 8 hours dark
  - Light intensity: 100 foot-candles, average
  - Control Water: Dilute mineral water made with 20 % Perrier in Nanopure
  - Dilution Water: Laboratory control water
  - Pretreatment: none
3. Method 1002.0
  - Test chambers: 30 mL disposable plastic beakers
  - Volume per chamber: 15 mL
  - Number of organisms per chamber: 1
  - Number of replicates: 10
  - Food: Laboratory culture of Selenastrum algae and YCT solution
4. Method 1000.0
  - Test chambers: 20 oz. Disposable plastic cups
  - Volume per chamber: 200 mL
  - Average number of organisms per chamber: 8
  - Number of replicates per concentration: 5
  - Food: Artemia brine shrimp hatched in laboratory
  - Acclimation of organisms: Organisms are allowed to reach test temperature. Dilution water is added at half-hour intervals until organisms are contained in a culture media that consists of 80% dilution water.
5. Indicate below any other relevant information that may aid in the evaluation of this report. Include any deviations from EPA methodology that were necessary for these tests as well as any sample manipulations which were performed, such as aeration, dechlorination with sodium thiosulfate, etc. and the justification for such manipulations or deviations. Attach additional pages as needed.
  - None



# ENVIRONMENTAL TESTING & CONSULTING, INC.

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02-11-2014  
08:51:56

Environmental Services Co. Inc.  
Biossay

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Company Name Environmental Services Co. Inc.		Customer Number 03341	Telephone (501) 221-2365	RUSH	ICE		
Site Name Clinton - Composite #1		Project Comment		FID Number			
Project Environmental Services - Biossay		Project Number 1402010186	PO Number X				
Project Manager / Contact Ms. Joyce Brown		E-mail joyceb@esclabs.com					
Sample ID	Container Type	Collected Date / Time	# Cont	Preservative	Grab / Comp	Matrix	Analyses
Outfall 001 - Composite 1	Plastic - Pint	2-10-14 / 08:51	1	NONE	C	Aqueous	alkalinity
Outfall 001 - Composite 1	Plastic - Pint		1	HNO3 - Nitric Acid	C	Aqueous	hardness
Outfall 001 - Composite 1	Plastic - Gallon		2	NONE	C	Aqueous	chronic CD/PH

Sampled By <i>Mike Hinkle</i>	Method of Shipment Fed Ex	Blank / Cooler temperature <i>1.5C</i>	Remarks
Relinquished By (sign) <i>Mike Hinkle</i>	Date / Time 2-10-14 / 10:30	Received By (sign)	Date / Time
Relinquished By (sign)	Date / Time	Received By (sign)	Date / Time
Relinquished By (sign)	Date / Time	Received by Lab (sign) <i>RR</i>	Date / Time <i>2/10/14 - 08:40</i>



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Environmental Services Co. Inc.  
Biossavy 211114

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02-11-2014  
08:51:56

②

Company Name Environmental Services Co. Inc.		Customer Number 03341	Telephone (501) 221-2565	RUSH	ICE		
Site Name Clinton - Composite #2		Project Comment			FID Number		
Project Environmental Services - Biossavy		Project Number 1407010233	PO Number				
Project Manager / Contact Ms. Joyce Brown		E-mail joyceb@eselabs.com					
Sample ID	Container Type	Collected Date / Time	# Cont	Preservative	Grab / Comp	Matrix	Analyses
Outfall 001 - Composite 2	Plastic - Pint	2-12-13 08:50	1	NONE	C	Aqueous	alkalinity
Outfall 001 - Composite 2	Plastic - Pint		1	HNO3 - Nitric Acid	C	Aqueous	hardness
Outfall 001 - Composite 2	Plastic - Gallon		2	NONE	C	Aqueous	chronic CO/PH

Sampled By <i>M. K. Hinkle</i>	Method of Shipment Fed Ex	Blank / Cooler Temperature 0.3°C	Remarks
Relinquished By (sign) <i>M. K. Hinkle</i>	Date / Time 2-12-13 08:50	Received By (sign)	Date / Time
Relinquished By (sign)	Date / Time	Received By (sign)	Date / Time
Relinquished By (sign)	Date / Time	Received by Lab (sign) <i>B. C. O'Connell</i>	Date / Time 2-13-14 08:50





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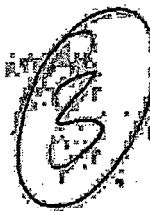
# ENVIRONMENTAL TESTING & CONSULTING, INC.

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Environmental Services Co. Inc.  
Clinton - Bloassay 7/27/11/14/2/13/14

14-042-0190  
03341  
02-11-2014  
08:51:56



Company Name Environmental Services Co. Inc.			Customer Number 03341		Telephone (501) 221-2565		RUSH	ICE
Site Name Clinton - Composite #3			Project Comment				FID Number	
Project Environmental Services - Bloassay			Project Number 1402010278		PO Number			
Project Manager / Contact Ms. Joyce Brown				E-mail joyceb@esclabs.com				
Sample ID	Container Type	Collected Date / Time	# Cont	Preservative	Grab / Comp	Matrix	Analyses	
Outfall 001 - Composite 3	Plastic - Pint	2-14-14 08:40	1	NONE	C	Aqueous	alkalinity	
Outfall 001 - Composite 3	Plastic - Pint		1	HNO3 - Nitric Acid	C	Aqueous	hardness	
Outfall 001 - Composite 3	Plastic - Gallon		3	NONE	C	Aqueous	chronic CD/EH	

Sampled By <i>Mike Hinkle</i>	Method of Shipment Fed Ex	Blank / Cooler Temperature <i>0.38</i>	Remarks
Relinquished By (sign) <i>Mike Hinkle</i>	Date / Time <i>2-14-14</i> <i>5:00</i>	Received By (sign)	Date / Time
Relinquished By (sign)	Date / Time	Received By (sign)	Date / Time
Relinquished By (sign)	Date / Time	Received by Lab (sign) <i>John Qualls</i>	Date / Time <i>2-15-14</i>

1/1

*07/50*

NAME:  
ADDRESS:

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

PERMIT NUMBER	DISCHARGE NUMBER

FACILITY:  
LOCATION:  
ATTN:

MONITORING PERIOD

YEAR	MONTH	DAY	TO	YEAR	MONTH	DAY

PARAMETER	SAMPLE MEASUREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
P/F STATRE 7DAY CHR CERIODAPHNIA TGP3B 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	0	*****	(9A)			
								PASS=0 FAIL=1			
P/F STATRE 7DAY CHR PIMEPHALES PROMELAS TGP6C 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	0	*****	(9A)			
								PASS=0 FAIL=1			
LF P/F LETH STATRE 7-DAY CHR CERIODAPHNIA TLP3B 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	0	*****	(9A)			
								PASS=0 FAIL=1			
LF P/F LETH STATRE 7-DAY CHR PIMEPHALES TLP6C 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	0	*****	(9A)			
								PASS=0 FAIL=1			
NOEL LETHAL STATRE 7-DAY CHR CERIODAPHNIA TOP3B 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	100	*****	(23)			
								PER-CENT			
NOEL LETHAL STATRE 7-DAY CHR PIMEPHALES TOP6C 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	*****	*****	100	*****	(23)			
								PER-CENT			

NAME:  
ADDRESS:

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
DISCHARGE MONITORING REPORT (DMR)

0  
0

PERMIT NUMBER  
0

DISCHARGE NUMBER  
0

FACILITY:  
LOCATION:  
ATTN:

MONITORING PERIOD

YEAR	MONTH	DAY	TO	YEAR	MONTH	DAY
0	0	0		0	0	0

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
NOEL SUB-LTH STATRE 7DAY CHR CERIODAPHNIA TPP3B 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****	*****	*****	100	*****	(23)		
	PERMIT REQUIREMENT							PER-CENT		
NOEL SUB-LTH STATRE 7DAY CHR PIMEPHALES TPP6C 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****	*****	*****	100	*****	(23)		
	PERMIT REQUIREMENT							PER-CENT		
COEF OF VAR STATRE 7DAY CHR CERIODAPHNIA TQP3B 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****	*****	*****	27.5	*****	(23)		
	PERMIT REQUIREMENT							PER-CENT		
COEF OF VAR STATRE 7DAY CHR PIMEPHALES TQP6C 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****	*****	*****	10.14	*****	(23)		
	PERMIT REQUIREMENT							PER-CENT		
WHOLE EFFLUENT TOXICITY 22414 S 0 0	SAMPLE MEASUREMENT	*****	*****	*****	100	*****	*****	(23)		
	PERMIT REQUIREMENT							PER-CENT		
WHOLE EFFLUENT TOXICITY 22414 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*****	*****	*****	100	*****	*****	(23)		
	PERMIT REQUIREMENT							PER-CENT		

Clinton WATER  
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