



CITY CORPORATION

Russellville Water and Sewer System

205 West 3rd Place PO Box 3186 Russellville, AR 72811-3186

Phone (479) 968-2105
FAX (479) 968-3265

March 12, 2013

Mr. Allen Anderson
Enforcement Analyst
NPDES Enforcement Section
Arkansas Department of Environmental Quality
5301 Northshore Dr
North Little Rock, Arkansas 72118

RE: Annual Biosolids Report - 2012
NPDES Permit No. AR0021768, AFIN 58-00105

Mr. Anderson:

Enclosed is the City Corporation Annual Biosolids Report in accordance with NPDES Permit AR0021768 part II, Paragraph 9.O. for the year ending December 31, 2012.

All analyses used to generate this report were performed in accordance with EPA Document SW-846 "Test Methods for Evaluation of Solid Waste", or applicable EPA approved methods.

If you have any questions concerning this report, please contact Randy Bradley, Pretreatment Coordinator, at (479) 968-2080, extension 224.

Sincerely,

Steve Mallett
General Manager

Enclosure

CITY CORPORATION

Russellville Wastewater Treatment Plant

Annual Sludge Report for 2012, NPDES Permit No. AR0021768

Pounds per Acre Applied in 2012

	NH3N	TKN	NO3N	NO2N	Total
Site #1	8.06	349.7	0.17	0	357.93
Site #2	3.02	131	0.06	0	134.08
Site #3	0	0	0	0	0.00

Pounds per Acre Applied in 2012 Plant Available Nitrogen

Site #1	106.7
Site #2	40

Pounds per Acre Applied in 2012

	As	Cd	Cu	Hg	Mo	Ni	Pb	Se	Zn	Cr	Total
Site #1	0.029	0.007	2.94	0.009	0.128	0.355	0.28	0	8.7	1.38	13.823
Site #2	0.011	0.003	1.09	0.004	0.048	0.021	0.103	0	3.3	0.52	5.100
Site #3	0	0	0	0	0	0	0	0	0	0	0

Pounds per Acre Applied to Date

	As	Cd	Cu	Hg	Mo	Ni	Pb	Se	Zn	Cr	Total
Site #1	0.7688	1.7478	169.87	0.445	10.86	17.40	39.11	1.76	583.29	9.7	835.0
Site #2	0.0307	0.1417	29.181	0.1225	1.6534	4.2822	4.4775	0.047	93.5867	17.5	151.0
Site #3	0.132	0.23	23.13	0.087	1.233	1.975	11.61	0.293	68.57	0.0	107.3

No biosolids were applied to Site #3 in 2012

City Corporation dewatered digested biosolids with an Ashbrook two meter belt press producing 219 dry metric tons and land applied 221.5 dry metric tons with spreader truck. (7 metric ton produced in 2011, applied in 2012)

The treated biosolids were used to grow native pasture grasses on land permitted by City Corporation. City Corporation employees using City Corporation owned equipment applied all biosolids. No public access to these sites are allowed.

All analyses were conducted in accordance with SW-846 or applicable EPA approved methods. The information included in this report is, to the best of my knowledge, true and correct.



 Steve Mallett, General Manager

3-13-13
 Date

City Corporation Sludge Application

Date	Site	Date	Site
5/16/12	Site 2	5/15/12	Site 1
5/17/12	Site 2	5/18/12	Site 1
5/22/12	Site 2	5/25/12	Site 1
5/23/12	Site 2	5/28/12	Site 1
5/24/12	Site 2	5/29/12	Site 1
6/19/12	Site 2	6/1/12	Site1
6/20/12	Site 2	6/4/12	Site 1
6/21/12	Site 2	6/5/12	Site 1
7/25/12	Site 2		
8/22/12	Site 2		
8/28/12	Site 2		
8/29/12	Site 2		
9/4/12	Site 2		
9/5/12	Site 1		
9/6/12	Site 1		
9/10/12	Site 2		
10/1/12	Site 2		
10/17/12	Site 1		
10/24/12	Site 2		
10/25/12	Site 2		
10/31/12	Site 2		
11/1/12	Site 2		
11/2/12	Site 2		
11/6/12	Site 2		
11/7/12	Site 2		
11/30/12	Site 2		
12/5/12	Site 2		
12/6/12	Site 2		
12/19/12	Site 2		
12/20/12	Site 2		
12/21/12	Site 2		

received
4/26/12 KA

April 20, 2012
Control No. 156855
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City Corporation
Post Office Box 3186
Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 156855-1

Sample Identification: L246-045570 0412051 Field #2 4/6/2012 730-1030

Analyte	Result	RL	Units	Qualifier
Electrical Conductivity EPA 9050A Prep: 17-Apr-2012 1436 by 93	150 Analyzed: 18-Apr-2012 1100 by 93	3	umho/cm Batch: W39567	
Total Solids SM 2540G Prep: 19-Apr-2012 0914 by 285	75 Analyzed: 19-Apr-2012 1606 by 285	0.01	% Batch: W39589	
Arsenic EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	9.5 Analyzed: 12-Apr-2012 1723 by 270	5	mg/Kg Batch: S32233	
Cadmium EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	< 0.4 Analyzed: 13-Apr-2012 1238 by 270	0.4	mg/Kg Batch: S32233	
Chromium EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	69 Analyzed: 12-Apr-2012 1723 by 270	0.7	mg/Kg Batch: S32233	
Copper EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	67 Analyzed: 12-Apr-2012 1723 by 270	0.6	mg/Kg Batch: S32233	
Lead EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	35 Analyzed: 13-Apr-2012 1238 by 270	4	mg/Kg Batch: S32233	
Magnesium EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	870 Analyzed: 12-Apr-2012 1723 by 270	3	mg/Kg Batch: S32233	
Molybdenum EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	4.2 Analyzed: 12-Apr-2012 1723 by 270	0.8	mg/Kg Batch: S32233	
Nickel EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	19 Analyzed: 13-Apr-2012 1238 by 270	1	mg/Kg Batch: S32233	
Phosphorus EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	3300 Analyzed: 13-Apr-2012 1515 by 270	10	mg/Kg Batch: S32233	
Potassium EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	1500 Analyzed: 12-Apr-2012 1723 by 270	100	mg/Kg Batch: S32233	
Selenium EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	< 7 Analyzed: 12-Apr-2012 1723 by 270	7	mg/Kg Batch: S32233	
Zinc EPA 3051A, 6010C Prep: 12-Apr-2012 1215 by 100	190 Analyzed: 12-Apr-2012 1723 by 270	0.2	mg/Kg Batch: S32233	
Mercury EPA 7471B Prep: 12-Apr-2012 1413 by 100	0.64 Analyzed: 13-Apr-2012 1733 by 297	0.1	mg/Kg Batch: S32234	
Nitrate as N EPA 9056A Prep: 11-Apr-2012 1544 by 07	2.9 Analyzed: 12-Apr-2012 0110 by 07	0.7	mg/Kg Batch: S32229	H
Calcium Carbonate Equivalence AOAC 955.01 Analyzed: 18-Apr-2012 1406 by 07	7.7	0.1	% Batch: C15206	

Cooperative Extension Service
Soil Analysis Report
Soil Testing And Research Laboratory
Marianna, AR 72360
<http://www.uark.edu/depts/soiltest>

The University of Arkansas is an equal opportunity/affirmative action institution

RANDY BRADLEY	Client ID:	4799685797
PO BOX 3186		
RUSSELLVILLE	AR	72811
Date Processed:	4/24/2012	
Field ID:	2	
Acres	57	
Lime Applied in the last 4 years:	Yes	
Leveled in past 4 years:	No	
Irrigation:	Unknown	
County:	Pope	
Lab Number:	82329	
Sample Number:	1948212	

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	303	606	Above Optimum
K	45	90	Very Low
Ca	1107	2214	--
Mg	74	148	--
SO4-S	44	88	--
Zn	40.4	80.8	--
Fe	286	572	--
Mn	225	450	--
Cu	10.3	20.6	--
B	0.5	1.0	--
NO3-N			--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.3	---
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	12	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam - Silty Clay Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
53.8	46.5	5.2	1.0	1.1

3. Recommendations (Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop	N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop	Pasture (207)						
Crop 1	60	0	160	0	0	0	5000
Crop 2							
Crop 3							

4. Crop 1 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.

5. Crop 2 Notes:

6. Crop 3 Notes:



**Environmental
Enterprise Group, Inc.**

received
4/26/12/KA

220 North Knoxville Russellville, Arkansas 72801
Phone (479) 968-6767 Fax (479) 968-1956
www.eegonline.com

April 20, 2012
Control No. 156854
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City Corporation
Post Office Box 3186
Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 156854-1

Sample Identification: L246-045569 0412050 Field #1 4/5/2012 950-1140

Analyte	Result	RL	Units	Qualifier
Electrical Conductivity EPA 9050A	150 Analyzed: 18-Apr-2012 1100 by 93	3	umho/cm Batch: W39567	
Total Solids SM 2540G	71 Analyzed: 19-Apr-2012 1606 by 285	0.01	% Batch: W39589	
Arsenic EPA 3051A, 6010C	9.1 Analyzed: 12-Apr-2012 1627 by 270	5	mg/Kg Batch: S32233	
Cadmium EPA 3051A, 6010C	< 0.4 Analyzed: 13-Apr-2012 1149 by 270	0.4	mg/Kg Batch: S32233	
Chromium EPA 3051A, 6010C	82 Analyzed: 12-Apr-2012 1627 by 270	0.7	mg/Kg Batch: S32233	
Copper EPA 3051A, 6010C	130 Analyzed: 12-Apr-2012 1627 by 270	0.6	mg/Kg Batch: S32233	
Lead EPA 3051A, 6010C	48 Analyzed: 13-Apr-2012 1149 by 270	4	mg/Kg Batch: S32233	
Magnesium EPA 3051A, 6010C	860 Analyzed: 12-Apr-2012 1627 by 270	3	mg/Kg Batch: S32233	
Molybdenum EPA 3051A, 6010C	8.5 Analyzed: 12-Apr-2012 1627 by 270	0.8	mg/Kg Batch: S32233	
Nickel EPA 3051A, 6010C	20 Analyzed: 13-Apr-2012 1149 by 270	1	mg/Kg Batch: S32233	
Phosphorus EPA 3051A, 6010C	6500 Analyzed: 13-Apr-2012 1500 by 270	10	mg/Kg Batch: S32233	
Potassium EPA 3051A, 6010C	1400 Analyzed: 12-Apr-2012 1627 by 270	100	mg/Kg Batch: S32233	
Selenium EPA 3051A, 6010C	< 7 Analyzed: 12-Apr-2012 1627 by 270	7	mg/Kg Batch: S32233	
Zinc EPA 3051A, 6010C	230 Analyzed: 12-Apr-2012 1627 by 270	0.2	mg/Kg Batch: S32233	
Mercury EPA 7471B	1.1 Analyzed: 13-Apr-2012 1728 by 297	0.1	mg/Kg Batch: S32234	
Nitrate as N EPA 9056A	2.9 Analyzed: 12-Apr-2012 0019 by 07	0.8	mg/Kg Batch: S32229	H
Calcium Carbonate Equivalence AOAC 955.01	8.0 Analyzed: 18-Apr-2012 1406 by 07	0.1	% Batch: C15206	

analytical services provided by:



Cooperative Extension Service
Soil Analysis Report
Soil Testing And Research Laboratory
Marianna, AR 72360
<http://www.uark.edu/depts/soiltest>

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RANDY BRADLEY Client ID: 479968579
 PO BOX 3186
 RUSSELLVILLE AR 72817
 Date Processed: 4/24/2012
 Field ID: 1
 Acres: 40
 Lime Applied in the last 4 years: Yes
 Leveled in past 4 years: No
 Irrigation: Unknown
 County: Pope
 Lab Number: 82328
 Sample Number: 1948211

1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	831	1662	Above Optimum
K	65	130	Low
Ca	1286	2572	--
Mg	51	102	--
SO4-S	68	136	--
Zn	62.4	124.8	--
Fe	358	716	--
Mn	122	244	--
Cu	18.9	37.8	--
B	0.7	1.4	--
NO3-N			--

2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	4.7	--
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	15	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silt Loam - Silty Clay Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
48.8	43.9	2.9	1.1	0.8

3. Recommendations (Notice: State and/or federal nutrient management regulations may supersede these agronomic recommendations.)

Crop	N	P2O5	K2O	SO4S	Zn	B	Lime
Last Crop: Pasture (207)	----- lb/acre -----						
Crop 1: Warm-Season Grasses (MNT) (207)	60	0	110	0	0	0	6000
Crop 2:							
Crop 3:							

4. Crop 1 Notes:

Apply the recommended rates of N, P, and K, in spring when night temperatures are > 60 degrees F for 1 week. For higher production, topdress an additional 60 lb N/Acre after every 4 to 6 weeks of grazing. For fall grazing apply 50 lb N/Acre in early August. Do not apply N after September 1.

5. Crop 2 Notes:

6. Crop 3 Notes:

4th Qtr
2012

October 26, 2012
Control No. 161877
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City Corporation
Post Office Box 3186
Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 161877-1

Sample Identification: L246-046271 1012178 PCW Bio-Solids 10/17/2012

Analyte	Result	RL	Units	Qualifier
Total Solids SM 2540 G Prep: 19-Oct-2012 1513 by 302	19 Analyzed: 22-Oct-2012 1029 by 302	0.01	% Batch: W41404	
Volatile Solids SM 2540 G Prep: 22-Oct-2012 0914 by 302	64 Analyzed: 22-Oct-2012 1029 by 302	0.01	% Batch: W41404	
Ammonia as N SM 4500-NH3 B.G Prep: 25-Oct-2012 0919 by 93	920 Analyzed: 25-Oct-2012 1910 by 93	200	mg/Kg Batch: W41444	
Total Kjeldahl Nitrogen SM 4500-Norg D Prep: 19-Oct-2012 1657 by 93	50000 Analyzed: 24-Oct-2012 1507 by 306	9000	mg/Kg Batch: W41399	
Arsenic EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	< 5 Analyzed: 22-Oct-2012 1427 by 305	5	mg/Kg Batch: S33347	
Cadmium EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	1.8 Analyzed: 22-Oct-2012 1427 by 305	0.4	mg/Kg Batch: S33347	
Chromium EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	230 Analyzed: 22-Oct-2012 1427 by 305	0.7	mg/Kg Batch: S33347	
Copper EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	500 Analyzed: 22-Oct-2012 1427 by 305	0.6	mg/Kg Batch: S33347	
Lead EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	41 Analyzed: 22-Oct-2012 1427 by 305	4	mg/Kg Batch: S33347	
Molybdenum EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	23 Analyzed: 22-Oct-2012 1427 by 305	0.8	mg/Kg Batch: S33347	
Nickel EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	53 Analyzed: 22-Oct-2012 1427 by 305	1	mg/Kg Batch: S33347	
Phosphorus EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	19000 Analyzed: 22-Oct-2012 1457 by 305	100	mg/Kg Batch: S33347	
Potassium EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	3300 Analyzed: 22-Oct-2012 1427 by 305	100	mg/Kg Batch: S33347	
Selenium EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	< 7 Analyzed: 22-Oct-2012 1427 by 305	7	mg/Kg Batch: S33347	
Zinc EPA 3051A. 6010C Prep: 22-Oct-2012 0946 by 100	1300 Analyzed: 22-Oct-2012 1427 by 305	0.2	mg/Kg Batch: S33347	
Mercury EPA 7471B Prep: 22-Oct-2012 1408 by 100	1.3 Analyzed: 23-Oct-2012 1058 by 271	0.1	mg/Kg Batch: S33350	
Nitrate as N EPA 9056A Prep: 19-Oct-2012 1757 by 271	21 Analyzed: 20-Oct-2012 1805 by 271	3	mg/Kg Batch: S33345	H
Nitrite as N EPA 9056A Prep: 19-Oct-2012 1757 by 271	< 3 Analyzed: 20-Oct-2012 1805 by 271	3	mg/Kg Batch: S33345	H

City Corporation
 Post Office Box 3186
 Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 161877-1 (Continued)

Sample Identification: L246-046271 1012178 PCW Bio-Solids 10/17/2012

Analyte	Result	RL	Units	Qualifier
Polychlorinated Biphenyls (PCBs) By EPA 3550C, 8082A				
PCB 1016 EPA 3550C, 8082A	< 0.070	0.070	mg/Kg	
	Prep: 23-Oct-2012 0851 by 288	Analyzed: 23-Oct-2012 1129 by 288	Batch: G9038	
PCB 1221 EPA 3550C, 8082A	< 0.070	0.070	mg/Kg	
	Prep: 23-Oct-2012 0851 by 288	Analyzed: 23-Oct-2012 1129 by 288	Batch: G9038	
PCB 1232 EPA 3550C, 8082A	< 0.070	0.070	mg/Kg	
	Prep: 23-Oct-2012 0851 by 288	Analyzed: 23-Oct-2012 1129 by 288	Batch: G9038	
PCB 1242 EPA 3550C, 8082A	< 0.070	0.070	mg/Kg	
	Prep: 23-Oct-2012 0851 by 288	Analyzed: 23-Oct-2012 1129 by 288	Batch: G9038	
PCB 1248 EPA 3550C, 8082A	< 0.070	0.070	mg/Kg	
	Prep: 23-Oct-2012 0851 by 288	Analyzed: 23-Oct-2012 1129 by 288	Batch: G9038	
PCB 1254 EPA 3550C, 8082A	< 0.070	0.070	mg/Kg	
	Prep: 23-Oct-2012 0851 by 288	Analyzed: 23-Oct-2012 1129 by 288	Batch: G9038	
PCB 1260 EPA 3550C, 8082A	< 0.070	0.070	mg/Kg	
	Prep: 23-Oct-2012 0851 by 288	Analyzed: 23-Oct-2012 1129 by 288	Batch: G9038	
Surrogate: Decachlorobiphenyl (17.1-120%) EPA 3550C, 8082A	63.6		%	
	Prep: 23-Oct-2012 0851 by 288	Analyzed: 23-Oct-2012 1129 by 288	Batch: G9038	

City Corporation Pretreatment Program

Record of pH

pH Method: SM 18th 4500-H + B Electronic Method

Facility Name: Fourth Quarter Sludge

Date / Time Sample Collected: 10/17/12 @ 1430 Collected by: CPA

Date / Time Sample Analyzed: 10/17/12 @ 1446 Analyzed by: CPA

pH value sample: 6.14

Temp: 20.8C

pH value duplicate:

Abs. Diff. (sample duplicate):

pH meter # H-160

pH meters used are calibrated each morning - record of calibration on file in the PCW lab.

received
9/12/12

3rd Qtr
2012

September 6, 2012
Control No. 160559
Page 3 of 7

City Corporation
Post Office Box 3186
Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 160559-1

Sample Identification: L246-046065 0812184 PCW Bio-Solids 8/28/2012

Analyte	Result	RL	Units	Qualifier
Total Solids SM 2540 G	19 Prep: 04-Sep-2012 0928 by 285 Analyzed: 04-Sep-2012 1548 by 285	0.01	% Batch: W40898	
Volatile Solids SM 2540 G	64 Prep: 04-Sep-2012 0928 by 285 Analyzed: 04-Sep-2012 1548 by 285	0.01	% Batch: W40898	
Ammonia as N SM 4500-NH3 B,G	420 Prep: 04-Sep-2012 0932 by 93 Analyzed: 04-Sep-2012 1600 by 93	30	mg/Kg Batch: W40900	
Total Kjeldahl Nitrogen SM 4500-Norg D	41000 Prep: 04-Sep-2012 0932 by 93 Analyzed: 05-Sep-2012 0904 by 93	8000	mg/Kg Batch: W40899	
Arsenic EPA 3051A, 6010C	< 5 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1608 by 305	5	mg/Kg Batch: S33068	
Cadmium EPA 3051A, 6010C	2.1 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1608 by 305	0.4	mg/Kg Batch: S33068	
Chromium EPA 3051A, 6010C	220 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1608 by 305	0.7	mg/Kg Batch: S33068	
Copper EPA 3051A, 6010C	440 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1608 by 305	0.6	mg/Kg Batch: S33068	
Lead EPA 3051A, 6010C	28 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1608 by 305	4	mg/Kg Batch: S33068	
Molybdenum EPA 3051A, 6010C	20 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1608 by 305	0.8	mg/Kg Batch: S33068	
Nickel EPA 3051A, 6010C	45 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1608 by 305	1	mg/Kg Batch: S33068	
Phosphorus EPA 3051A, 6010C	18000 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1126 by 305	100	mg/Kg Batch: S33068	
Potassium EPA 3051A, 6010C	3200 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1608 by 305	100	mg/Kg Batch: S33068	
Selenium EPA 3051A, 6010C	< 7 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1608 by 305	7	mg/Kg Batch: S33068	
Sodium Absorption Ratio EPA 3051A, 6010C	2.4 Prep: 04-Sep-2012 1101 by 270 Analyzed: 06-Sep-2012 1408 by 270		Batch: S33068	
Zinc EPA 3051A, 6010C	1400 Prep: 04-Sep-2012 1101 by 305 Analyzed: 05-Sep-2012 1608 by 305	0.2	mg/Kg Batch: S33068	
Mercury EPA 7471B	1.6 Prep: 04-Sep-2012 0924 by 271 Analyzed: 04-Sep-2012 1620 by 271	0.1	mg/Kg Batch: S33070	
Nitrate as N EPA 9056A	27 Prep: 30-Aug-2012 1450 by 07 Analyzed: 30-Aug-2012 1731 by 07	3	mg/Kg Batch: S33056	H

September 6, 2012
Control No. 160559
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City Corporation
Post Office Box 3186
Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 160559-1 (Continued)

Sample Identification: L246-046065 0812184 PCW Bio-Solids 8/28/2012

Analyte	Result	RL	Units	Qualifier
Nitrite as N EPA 9056A	< 3	3	mg/Kg	H
Prep: 30-Aug-2012 1450 by 07 Analyzed: 30-Aug-2012 1731 by 07 Batch: S33056				
Polychlorinated Biphenyls (PCBs) By EPA 3550C, 8082A				
PCB 1016 EPA 3550C, 8082A	< 0.069	0.069	mg/Kg	
Prep: 31-Aug-2012 1437 by 301 Analyzed: 04-Sep-2012 1149 by 288 Batch: G8996				
PCB 1221 EPA 3550C, 8082A	< 0.069	0.069	mg/Kg	
Prep: 31-Aug-2012 1437 by 301 Analyzed: 04-Sep-2012 1149 by 288 Batch: G8996				
PCB 1232 EPA 3550C, 8082A	< 0.069	0.069	mg/Kg	
Prep: 31-Aug-2012 1437 by 301 Analyzed: 04-Sep-2012 1149 by 288 Batch: G8996				
PCB 1242 EPA 3550C, 8082A	< 0.069	0.069	mg/Kg	
Prep: 31-Aug-2012 1437 by 301 Analyzed: 04-Sep-2012 1149 by 288 Batch: G8996				
PCB 1248 EPA 3550C, 8082A	< 0.069	0.069	mg/Kg	
Prep: 31-Aug-2012 1437 by 301 Analyzed: 04-Sep-2012 1149 by 288 Batch: G8996				
PCB 1254 EPA 3550C, 8082A	< 0.069	0.069	mg/Kg	
Prep: 31-Aug-2012 1437 by 301 Analyzed: 04-Sep-2012 1149 by 288 Batch: G8996				
PCB 1260 EPA 3550C, 8082A	< 0.069	0.069	mg/Kg	
Prep: 31-Aug-2012 1437 by 301 Analyzed: 04-Sep-2012 1149 by 288 Batch: G8996				
Surrogate: Decachlorobiphenyl (17.1-120%) EPA 3550C, 8082A	44.8		%	
Prep: 31-Aug-2012 1437 by 301 Analyzed: 04-Sep-2012 1149 by 288 Batch: G8996				

City Corporation Pretreatment Program

Record of pH

pH Method: SM 18th 4500-H + B Electronic Method

Facility Name: Third Quarter Sludge

Date / Time Sample Collected: 8/28/12 @ 1450 Collected by: CAP

Date / Time Sample Analyzed: 8/28/12 @ 1500 Analyzed by: CAP

pH value sample: 6.48

Temp: 26.8C

pH value duplicate:

Abs. Diff. (sample duplicate):

pH meter # H-160

pH meters used are calibrated each morning - record of calibration on file in the PCW lab.



Environmental
Enterprise Group, Inc.

2nd Qtr
2012

220 North Knoxville Russellville, Arkansas 72801
Phone (479) 968-6767 Fax (479) 968-1956
www.eegonline.com

POSTED

April 23, 2012
Control No. 156969
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City Corporation
Post Office Box 3186
Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 156969-1

Sample Identification: L246-045590 0412089 PCW Bio-Solids 4/12/2012 715-1500

Analyte	Result	RL	Units	Qualifier
TCLP: Solids EPA 1311	100	0.5	%	
	Analyzed: 17-Apr-2012 1543 by 285		Batch: S32189	
TCLP: Arsenic EPA 3010A, 6010C	< 0.05	0.05	mg/l	
Prep: 18-Apr-2012 1355 by 100	Analyzed: 18-Apr-2012 1725 by 270		Batch: S32266	
TCLP: Barium EPA 3010A, 6010C	< 1	1	mg/l	
Prep: 18-Apr-2012 1355 by 100	Analyzed: 19-Apr-2012 1050 by 270		Batch: S32266	
TCLP: Cadmium EPA 3010A, 6010C	< 0.004	0.004	mg/l	
Prep: 18-Apr-2012 1355 by 100	Analyzed: 18-Apr-2012 1725 by 270		Batch: S32266	
TCLP: Chromium EPA 3010A, 6010C	0.013	0.007	mg/l	
Prep: 18-Apr-2012 1355 by 100	Analyzed: 18-Apr-2012 1725 by 270		Batch: S32266	
TCLP: Lead EPA 3010A, 6010C	0.086	0.04	mg/l	
Prep: 18-Apr-2012 1355 by 100	Analyzed: 18-Apr-2012 1725 by 270		Batch: S32266	
TCLP: Selenium EPA 3010A, 6010C	< 0.07	0.07	mg/l	
Prep: 18-Apr-2012 1355 by 100	Analyzed: 18-Apr-2012 1725 by 270		Batch: S32266	
TCLP: Silver EPA 3010A, 6010C	< 0.007	0.007	mg/l	
Prep: 18-Apr-2012 1355 by 100	Analyzed: 18-Apr-2012 1725 by 270		Batch: S32266	
TCLP: Mercury EPA 7470A	< 0.01	0.01	mg/l	
Prep: 18-Apr-2012 1431 by 100	Analyzed: 20-Apr-2012 1525 by 297		Batch: S32267	
Volatile Solids SM 2540 G	290	0.06	%	
Prep: 17-Apr-2012 0940 by 285	Analyzed: 19-Apr-2012 0825 by 285		Batch: W39561	
Total Solids SM 2540G	19	0.01	%	
Prep: 17-Apr-2012 0938 by 285	Analyzed: 18-Apr-2012 1608 by 285		Batch: W39561	
Ammonia as N SM 4500 NH3-BG	1500	200	mg/Kg	
Prep: 16-Apr-2012 1013 by 93	Analyzed: 17-Apr-2012 1414 by 93		Batch: W39547	
Total Kjeldahl Nitrogen SM 4500Norg D	47000	10000	mg/Kg	
Prep: 18-Apr-2012 1010 by 93	Analyzed: 20-Apr-2012 1340 by 93		Batch: W39578	
Arsenic EPA 3051A, 6010C	9.0	5	mg/Kg	
Prep: 16-Apr-2012 0912 by 100	Analyzed: 17-Apr-2012 2104 by 270		Batch: S32247	
Cadmium EPA 3051A, 6010C	< 0.4	0.4	mg/Kg	
Prep: 16-Apr-2012 0912 by 100	Analyzed: 17-Apr-2012 2104 by 270		Batch: S32247	
Chromium EPA 3051A, 6010C	160	0.7	mg/Kg	
Prep: 16-Apr-2012 0912 by 100	Analyzed: 17-Apr-2012 2104 by 270		Batch: S32247	
Copper EPA 3051A, 6010C	340	0.6	mg/Kg	
Prep: 16-Apr-2012 0912 by 100	Analyzed: 17-Apr-2012 2104 by 270		Batch: S32247	
Lead EPA 3051A, 6010C	41	4	mg/Kg	
Prep: 16-Apr-2012 0912 by 100	Analyzed: 17-Apr-2012 2104 by 270		Batch: S32247	

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City Corporation
 Post Office Box 3186
 Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 156969-1 (Continued)

Sample Identification: L246-045590 0412089 PCW Bio-Solids 4/12/2012 715-1500

Analyte	Result	RL	Units	Qualifier
Molybdenum EPA 3051A, 6010C Prep: 16-Apr-2012 0912 by 100	13 Analyzed: 17-Apr-2012 2104 by 270	0.8	mg/Kg Batch: S32247	
Nickel EPA 3051A, 6010C Prep: 16-Apr-2012 0912 by 100	54 Analyzed: 17-Apr-2012 2104 by 270	1	mg/Kg Batch: S32247	
Phosphorus EPA 3051A, 6010C Prep: 16-Apr-2012 0912 by 100	19000 Analyzed: 18-Apr-2012 1239 by 270	100	mg/Kg Batch: S32247	
Potassium EPA 3051A, 6010C Prep: 16-Apr-2012 0912 by 100	2900 Analyzed: 17-Apr-2012 2104 by 270	100	mg/Kg Batch: S32247	
Selenium EPA 3051A, 6010C Prep: 16-Apr-2012 0912 by 100	< 7 Analyzed: 17-Apr-2012 2104 by 270	7	mg/Kg Batch: S32247	
Zinc EPA 3051A, 6010C Prep: 16-Apr-2012 0912 by 100	1100 Analyzed: 17-Apr-2012 2104 by 270	0.2	mg/Kg Batch: S32247	
Mercury PA 7471B Prep: 16-Apr-2012 1142 by 100	0.82 Analyzed: 18-Apr-2012 1250 by 297	0.1	mg/Kg Batch: S32248	
Nitrate as N PA 9056A Prep: 13-Apr-2012 1634 by 100	45 Analyzed: 17-Apr-2012 1101 by 07	3	mg/Kg Batch: S32246	
Nitrite as N PA 9056A Prep: 13-Apr-2012 1634 by 100	< 3 Analyzed: 17-Apr-2012 1101 by 07	3	mg/Kg Batch: S32246	
Polychlorinated Biphenyls (PCBs) By EPA 3550C, 8082A				
PCB 1016 EPA 3550C, 8082A Prep: 16-Apr-2012 1402 by 301	< 0.54 Analyzed: 23-Apr-2012 1319 by 301	0.54	mg/Kg Batch: G8861	
PCB 1221 EPA 3550C, 8082A Prep: 16-Apr-2012 1402 by 301	< 0.54 Analyzed: 23-Apr-2012 1319 by 301	0.54	mg/Kg Batch: G8861	
PCB 1232 EPA 3550C, 8082A Prep: 16-Apr-2012 1402 by 301	< 0.54 Analyzed: 23-Apr-2012 1319 by 301	0.54	mg/Kg Batch: G8861	
PCB 1242 EPA 3550C, 8082A Prep: 16-Apr-2012 1402 by 301	< 0.54 Analyzed: 23-Apr-2012 1319 by 301	0.54	mg/Kg Batch: G8861	
PCB 1248 EPA 3550C, 8082A Prep: 16-Apr-2012 1402 by 301	< 0.54 Analyzed: 23-Apr-2012 1319 by 301	0.54	mg/Kg Batch: G8861	
PCB 1254 EPA 3550C, 8082A Prep: 16-Apr-2012 1402 by 301	< 0.54 Analyzed: 23-Apr-2012 1319 by 301	0.54	mg/Kg Batch: G8861	
PCB 1260 EPA 3550C, 8082A Prep: 16-Apr-2012 1402 by 301	< 0.54 Analyzed: 23-Apr-2012 1319 by 301	0.54	mg/Kg Batch: G8861	
PCB 1262 EPA 3550C, 8082A Prep: 16-Apr-2012 1402 by 301	< 0.54 Analyzed: 23-Apr-2012 1319 by 301	0.54	mg/Kg Batch: G8861	
PCB 1268 EPA 3550C, 8082A Prep: 16-Apr-2012 1402 by 301	< 0.54 Analyzed: 23-Apr-2012 1319 by 301	0.54	mg/Kg Batch: G8861	

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April 23, 2012
 Control No. 156969
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City Corporation
 Post Office Box 3186
 Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 156969-1 (Continued)

Sample Identification: L246-045590 0412089 PCW Bio-Solids 4/12/2012 715-1500

Analyte	Result	RL	Units	Qualifier
Polychlorinated Biphenyls (PCBs) By EPA 3550C, 8082A (Continued)				
Surrogate: Decachlorobiphenyl (49.8-107%)	70.4		%	
EPA 3550C, 8082A	Prep: 16-Apr-2012 1402 by 301	Analyzed: 23-Apr-2012 1319 by 301	Batch: G8861	

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City Corporation Pretreatment Program

Record of pH

pH Method: SM 18th 4500-H + B Electronic Method

Facility Name: Second Quarter Sludge

Date / Time Sample Collected: 4/12/12 @ 1500 Collected by: CAT

Date / Time Sample Analyzed: 4/12/12 @ 1505 Analyzed by: CAT

pH value sample: 6.75 Temp: 18.9C

pH value duplicate: Abs. Diff. (sample duplicate):

pH meter # H-160

pH meters used are calibrated each morning - record of calibration on file in the PCW lab.



Environmental
Enterprise Group, Inc.

received
1/24/2012

220 North Knoxville Russellville, Arkansas 72801
Phone (479) 968-6767 Fax (479) 968-1956
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1st Atr 2012
Bio Solids

January 23, 2012
Control No. 154317
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City Corporation
Post Office Box 3186
Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 154317-1

Sample Identification: L246-045266 0112052 PCW Bio-Solids 1/10/2012

Analyte	Result	RL	Units	Qualifier
Volatile Solids SM 2540 G	62	0.01	%	
Prep: 16-Jan-2012 0900 by 285	Analyzed: 16-Jan-2012 1728 by 285		Batch: W38641	
Total Solids SM 2540G	17	0.01	%	
Prep: 16-Jan-2012 0900 by 285	Analyzed: 16-Jan-2012 1728 by 285		Batch: W38641	
Ammonia as N SM 4500 NH3-BG	1700	200	mg/Kg	
Prep: 18-Jan-2012 1121 by 93	Analyzed: 18-Jan-2012 1928 by 93		Batch: W38677	
Total Kjeldahl Nitrogen SM 4500Norg D	59000	8000	mg/Kg	
Prep: 18-Jan-2012 1122 by 93	Analyzed: 20-Jan-2012 1629 by 93		Batch: W38678	
Arsenic EPA 3051A, 6010C	7.2	5	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 17-Jan-2012 1933 by 297		Batch: S31598	
Cadmium EPA 3051A, 6010C	< 0.4	0.4	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 17-Jan-2012 1933 by 297		Batch: S31598	
Chromium EPA 3051A, 6010C	170	0.7	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 17-Jan-2012 1933 by 297		Batch: S31598	
Copper EPA 3051A, 6010C	360	0.6	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 17-Jan-2012 1933 by 297		Batch: S31598	
Lead EPA 3051A, 6010C	45	4	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 17-Jan-2012 1933 by 297		Batch: S31598	
Molybdenum EPA 3051A, 6010C	16	0.8	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 17-Jan-2012 1933 by 297		Batch: S31598	
Nickel EPA 3051A, 6010C	48	1	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 17-Jan-2012 1933 by 297		Batch: S31598	
Phosphorus EPA 3051A, 6010C	20000	100	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 19-Jan-2012 1302 by 270		Batch: S31598	
Potassium EPA 3051A, 6010C	3200	100	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 17-Jan-2012 1933 by 297		Batch: S31598	
Selenium EPA 3051A, 6010C	< 7	7	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 17-Jan-2012 1933 by 297		Batch: S31598	
Zinc EPA 3051A, 6010C	1100	2	mg/Kg	
Prep: 16-Jan-2012 1355 by 100	Analyzed: 19-Jan-2012 1302 by 270		Batch: S31598	
Mercury EPA 7471B	1.5	0.1	mg/Kg	
Prep: 17-Jan-2012 1215 by 100	Analyzed: 18-Jan-2012 1129 by 270		Batch: S31607	
Nitrate as N EPA 9056A	< 5	5	mg/Kg	H
Prep: 16-Jan-2012 0943 by 100	Analyzed: 17-Jan-2012 0312 by 07		Batch: S31594	
Nitrite as N EPA 9056A	< 5	5	mg/Kg	H
Prep: 16-Jan-2012 0943 by 100	Analyzed: 17-Jan-2012 0312 by 07		Batch: S31594	

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January 23, 2012
 Control No. 154317
 Page 4 of 8

City Corporation
 Post Office Box 3186
 Russellville, AR 72811-3186

ANALYTICAL RESULTS

AIC No. 154317-1 (Continued)

Sample Identification: L246-045266 0112052 PCW Bio-Solids 1/10/2012

Analyte	Result	RL	Units	Qualifier
Polychlorinated Biphenyls (PCBs) By EPA 3550C, 8082A				
PCB 1016 EPA 3550C, 8082A	< 0.59	0.59	mg/Kg	
Prep: 13-Jan-2012 0900 by 290	Analyzed: 17-Jan-2012 1100 by 301		Batch: G8778	
PCB 1221 EPA 3550C, 8082A	< 0.59	0.59	mg/Kg	
Prep: 13-Jan-2012 0900 by 290	Analyzed: 17-Jan-2012 1100 by 301		Batch: G8778	
PCB 1232 EPA 3550C, 8082A	< 0.59	0.59	mg/Kg	
Prep: 13-Jan-2012 0900 by 290	Analyzed: 17-Jan-2012 1100 by 301		Batch: G8778	
PCB 1242 EPA 3550C, 8082A	< 0.59	0.59	mg/Kg	
Prep: 13-Jan-2012 0900 by 290	Analyzed: 17-Jan-2012 1100 by 301		Batch: G8778	
PCB 1248 EPA 3550C, 8082A	< 0.59	0.59	mg/Kg	
Prep: 13-Jan-2012 0900 by 290	Analyzed: 17-Jan-2012 1100 by 301		Batch: G8778	
PCB 1254 EPA 3550C, 8082A	< 0.59	0.59	mg/Kg	
Prep: 13-Jan-2012 0900 by 290	Analyzed: 17-Jan-2012 1100 by 301		Batch: G8778	
PCB 1260 EPA 3550C, 8082A	< 0.59	0.59	mg/Kg	
Prep: 13-Jan-2012 0900 by 290	Analyzed: 17-Jan-2012 1100 by 301		Batch: G8778	
PCB 1262 EPA 3550C, 8082A	< 0.59	0.59	mg/Kg	
Prep: 13-Jan-2012 0900 by 290	Analyzed: 17-Jan-2012 1100 by 301		Batch: G8778	
PCB 1268 EPA 3550C, 8082A	< 0.59	0.59	mg/Kg	
Prep: 13-Jan-2012 0900 by 290	Analyzed: 17-Jan-2012 1100 by 301		Batch: G8778	
Surrogate: Decachlorobiphenyl (4.70-128%) EPA 3550C, 8082A	64.8		%	
Prep: 13-Jan-2012 0900 by 290	Analyzed: 17-Jan-2012 1100 by 301		Batch: G8778	

City Corporation Pretreatment Program

Record of pH

pH Method: SM 18th 4500-H + B Electronic Method

Facility Name: First Quarter Sludge

Date / Time Sample Collected: 1/1/12 @ 1450 Collected by: CJP

Date / Time Sample Analyzed: 1/1/12 @ 1452 Analyzed by: CJP

pH value sample: 6.23

Temp: 13.5C

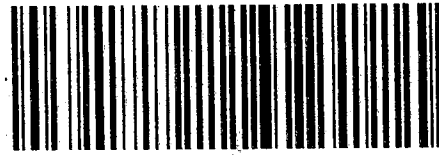
pH value duplicate:

Abs. Diff. (sample duplicate):

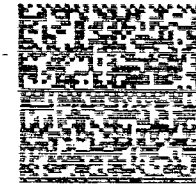
pH meter # H-160

pH meters used are calibrated each morning - record of calibration on file in the PCW lab.

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