



WASTEWATER DEPARTMENT

March 18, 2013

**To:** Arkansas Department of Environmental Quality  
5301 Northshore Drive  
North Little Rock, AR 72118-5317


**From:** David M. Roberts  
Wastewater Utilities Manager  
1901 N.E. "A" Street  
Bentonville, AR 72712

**RE:** Annual Biosolids Report for 2012  
(NPDES Permit Tracking No. **AR0022403**, AFIN **04-00154**)

Dear Sir or Madam,

Enclosed you will find the 2012 Annual Biosolids Report for the Bentonville Wastewater Treatment Plant located at 1901 N.E. "A" Street, Bentonville, AR 72712. If you should have any questions or need additional information, please feel free to contact me at (479) 271-3160 or [mroberts@bentonvillear.com](mailto:mroberts@bentonvillear.com).

Sincerely,

  
David M. Roberts  
Wastewater Utilities Manager  
City of Bentonville



WASTEWATER DEPARTMENT

March 18, 2013

**Annual Biosolids Report for 2012**

(NPDES Permit Tracking No. AR0022403, AFIN 04-00154)

**The City of Bentonville Biosolids Production and Disposal for 2012**

**No Biosolids were land applied in the state of Arkansas during the year 2012.**

**2012 Total Sludge Production: ----- 851.63 Metric Tons**

**Amount composted at the Bentonville Composting Facility: ----- 601.79 Metric Tons**

Bentonville Composting Facility

2000 N.W. "A" Street

Bentonville, AR 72712

**Permit No.: 0297-SC-R1 AFIN: 074-00472**

**Amount landfilled: ----- No Biosolids Landfilled in 2012**

**Amount transported out of state: ----- 97.22 Metric Tons**

Transported to the state of Kansas and land applied in Kansas by:

Oros & Busch Application Technologies, Inc.

P.O. Box 37

Defiance, MO 63341

(636) 329-8859

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN; AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

Respectfully Submitted,

David M. Roberts

Wastewater Utilities Manager

1901 N.E. "A" Street

Bentonville, AR 72712

(479) 271-3160



WASTEWATER DEPARTMENT

(NPDES Permit Tracking No. AR0022403, AFIN 04-00154)

March 18, 2013

## 2011 Land Application Program

There were no biosolids land applied in the State of Arkansas by the City of Bentonville during the year 2012.

As a result, there was no nutrient or metal loadings to any of the permitted land application sites during the year 2012.

Biosolids and soil analyses are enclosed in accordance with item #5 of page 1 part 1B of the NPDES permit which states "The permittee shall submit annual reports including the biosolids and soil analyses conducted under Condition 8.b (1) and 8.b (2) prior to May 1."

**Nutrient and Metal Loading  
for the 2012  
Land Application Program  
City of Bentonville**

**BIOSOLIDS CUMULATIVE LOADINGS 1992-2012  
JAMES BECKLOFF**

**FIELD #1**

	38 ACRES				24.1 ACRES				13.1 ACRES								9.0 ACRES		TO DATE	TO DATE	LIMIT
	1992-1994	1995	1996	1997	1998*	1999	2000	2001	2002**	2003	2004	2005	2006	2007	2008-2009	2010-2011	2012	LBS\ACRE	KG/HA	KG/HA	
ARSENIC	0.0033	0.06	0.01	0.06	0.02	0.026	0.02	0.04	0.03	0.026	0.024	0.028	0.024	0.028	0.000	0.000	0.000	0.399	<b>0.45</b>	41.0	
CADMIUM	0.024		0.22	0.006	0.002	0.008	0.003	0.004	0.006	0.010	0.006	0.007	0.004	0.006	0.000	0.000	0.000	0.306	<b>0.34</b>	39.0	
CHROMIUM	0.27	0.03			0.1													0.400	<b>0.45</b>	3000.0	
COPPER	0.9	0.1	0.5	0.2	0.6	0.8	0.6	0.85	1.88	1.147	1.060	1.159	0.917	1.056	0.000	0.000	0.000	11.769	<b>13.18</b>	1500.0	
LEAD	0.21		0.01	0.12	0.06	0.08	0.06	0.16	0.06	0.094	0.087	0.088	0.065	0.069	0.000	0.000	0.000	1.163	<b>1.30</b>	300.0	
MERCURY	0.0013	0.01	0.01	0.006	0.006	0.007	0.01	0.01	0.01	0.005	0.004	0.005	0.020	0.005	0.000	0.000	0.000	0.109	<b>0.12</b>	17.0	
MOLYBDENUM	0.04		0.02				0.02	0.05	0.03	0.041	0.043	0.059	0.055	0.056	0.000	0.000	0.000	0.414	<b>0.46</b>	18.0	
NICKEL	0.21	0.03	0.07	0.13	0.04	0.075	0.06	0.11	0.09	0.090	0.078	0.082	0.060	0.072	0.000	0.000	0.000	1.197	<b>1.34</b>	420.0	
SELENIUM	0.0034		0.23	0.07	0.03	0.088	0.03	0.05	0.03	0.036	0.034	0.039	0.034	0.039	0.000	0.000	0.000	0.713	<b>0.80</b>	100.0	
ZINC	2.21	0.02	1.01	1.1	0.9	1.282	0.91	2.18	2.84	1.710	1.400	1.724	1.345	1.699	0.000	0.000	0.000	20.330	<b>22.77</b>	2800.0	

\* usable acreage changed 24.1 in 1998  
 \*\* usable acreage changed 13.1 in 2002  
 \*\*\*usable acreage changed 9.0 in 2010

**FIELD #2**

	30 ACRES				19.4 ACRES								TO DATE	TO DATE	LIMIT				
	1993-94	1995	1996	1997	1998*	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008-2011	2012	LBS\ACRE	KG/HA	KG/HA
ARSENIC	0.0016	0.002	0.0001	0.102	0.03	0.03	0.01	0.03	0.003	0.035	0.021	0.030	0.005	0.032	0.000	0.000	0.332	<b>0.37</b>	41.0
CADMIUM	0.11	0.01	0.09	0.0102	0.004	0.009	0.01	0.004	0.001	0.009	0.005	0.015	0.001	0.006	0.000	0.000	0.284	<b>0.32</b>	39.0
CHROMIUM	0.11	0.13			0.18												0.420	<b>0.47</b>	3000.0
COPPER	0.3	0.7	0	1.2	0.9	0.8	0.9	1	0.3	1.727	0.928	1.778	0.198	1.389	0.000	0.000	12.120	<b>13.57</b>	1500.0
LEAD	0.13	0.13	0.4	0.204	0.1	0.082	0.1	0.1	0.01	0.144	0.075	0.210	0.018	0.085	0.000	0.000	1.788	<b>2.00</b>	300.0
MERCURY	0.0013	0.002		0.01	0.01	0.01	0.01	0.01	0.001	0.008	0.004	0.006	0.001	0.008	0.000	0.000	0.071	<b>0.08</b>	17.0
MOLYBDENUM	0.05	0.08	0.001				0.04	0.04	0.003	0.058	0.038	0.117	0.012	0.064	0.000	0.000	0.503	<b>0.56</b>	18.0
NICKEL	0.14	0.11	0.0005	0.21	0.06	0.08	0.1	0.1	0.01	0.137	0.069	0.124	0.012	0.096	0.000	0.000	1.249	<b>1.40</b>	420.0
SELENIUM	0.002	0.002	0.0001	0.12	0.05	0.08	0.03	0.04	0.004	0.050	0.030	0.042	0.007	0.045	0.000	0.000	0.502	<b>0.56</b>	100.0
ZINC	0.7	1.25	0.001	1.9	1.6	1.3	1.7	1.9	0.4	2.509	1.215	5.653	0.292	2.405	0.000	0.000	22.825	<b>25.56</b>	2800.0

\* usable acreage changed 24.1 in 1998

**FIELD #3**

	17.5 ACRES								TO DATE	TO DATE	LIMIT				
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008-2011	2012	LBS\ACRE	KG/HA	KG/HA
ARSENIC	0.02	0.02	0.09	0.03	0.01	0.029	0.017	0.031	0.013	0.023	0.000	0.000	0.283	<b>0.32</b>	41.0
CADMIUM	0.002	0.006	0.007	0.003	0.002	0.005	0.004	0.015	0.002	0.006	0.000	0.000	0.052	<b>0.06</b>	39.0
CHROMIUM	0.1												0.100	<b>0.11</b>	3000.0
COPPER	0.5	0.5	0.8	1	0.8	1.379	0.674	1.862	0.480	0.919	0.000	0.000	8.914	<b>9.98</b>	1500.0
LEAD	0.1	0.1	0.1	0.1	0.02	0.117	0.054	0.209	0.043	0.046	0.000	0.000	0.889	<b>1.00</b>	300.0
MERCURY	0.0004	0.005	0.006	0.011	0.003	0.006	0.003	0.007	0.002	0.008	0.000	0.000	0.051	<b>0.06</b>	17.0
MOLYBDENUM			0.001	0.0418	0.01	0.047	0.027	0.116	0.030	0.046	0.000	0.000	0.319	<b>0.36</b>	18.0
NICKEL	0.04	0.05	0.07	0.09	0.04	0.117	0.051	0.127	0.030	0.069	0.000	0.000	0.684	<b>0.77</b>	420.0
SELENIUM	0.03	0.03	0.14	0.04	0.01	0.041	0.023	0.043	0.018	0.032	0.000	0.000	0.407	<b>0.46</b>	100.0
ZINC	0.8	0.8	1.6	1.9	1.1	1.995	0.896	5.417	0.707	1.424	0.000	0.000	16.639	<b>18.64</b>	2800.0

**FIELD #4**

	16.6 ACRES								TO DATE	TO DATE	LIMIT				
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008-2011	2012	LBS\ACRE	KG/HA	KG/HA
ARSENIC	0.01	0.03	0.07	0.03	0.01	0.028	0.015	0.030	0.000	0.025	0.000	0.000	0.248	<b>0.28</b>	41.0
CADMIUM	0.001	0.008	0.007	0.004	0.002	0.005	0.004	0.015	0.000	0.005	0.000	0.000	0.051	<b>0.06</b>	39.0
CHROMIUM	0.1												0.100	<b>0.11</b>	3000.0
COPPER	0.4	0.7	0.9	0.9	0.8	1.311	0.719	1.762	0.000	0.929	0.000	0.000	8.421	<b>9.43</b>	1500.0
LEAD	0.05	0.07	0.1	0.11	0.03	0.111	0.064	0.204	0.000	0.061	0.000	0.000	0.800	<b>0.90</b>	300.0
MERCURY	0.0003	0.007	0.008	0.011	0.003	0.006	0.002	0.006	0.000	0.005	0.000	0.000	0.048	<b>0.05</b>	17.0
MOLYBDENUM			0.04	0.04	0.01	0.044	0.027	0.113	0.000	0.050	0.000	0.000	0.324	<b>0.36</b>	18.0
NICKEL	0.03	0.07	0.08	0.08	0.04	0.111	0.051	0.122	0.000	0.066	0.000	0.000	0.650	<b>0.73</b>	420.0
SELENIUM	0.02	0.04	0.1	0.04	0.01	0.039	0.021	0.042	0.000	0.035	0.000	0.000	0.347	<b>0.39</b>	100.0
ZINC	0.5	1.1	1.7	1.8	1.2	1.896	0.980	5.423	0.000	1.478	0.000	0.000	16.077	<b>18.01</b>	2800.0

COPY



Mr. James Beckloff  
1707 Mayflower Road  
Bentonville, Arkansas 72712

January 17, 2013

Dear Mr. Beckloff,

As part of the annual reporting requirements for the City of Bentonville's land application program, we are required to provide you with an annual report of the volume of biosolids, nutrients, and elements applied to your permitted land application sites. This letter is to notify you that there were no biosolids land applied and, therefore, no nutrients or metals applied to any of your permitted land application sites by the City of Bentonville during the year 2012.

Thank you for your interest, and cooperation with the City of Bentonville land application program for the beneficial use of biosolids. If you have any questions please feel free to contact us at 479-271-5954.

Sincerely,

  
Mark Kiggins  
Compost Operations Foreman



I certify, under penalty of law, that analysis for biosolids and soil analyses are performed in accordance with EPA Document SW-846, "Test Methods for Evaluation of Solid Waste", or other procedures approved by the Director of ADEQ.

*Nancy Wolf*  
 \_\_\_\_\_  
 Signature

*6/20/12*  
 \_\_\_\_\_  
 Date

(501) 575-3896 (FAX)
(501) 575-3911

**UNIVERSITY OF ARKANSAS**  
1871

**NANCY WOLF, Lab Manager**  
 Agriculture Services Laboratory  
 Department of Agronomy

200 Altheimer Drive • Fayetteville, Arkansas 72704  
 1366 W.

\*provide a proof of qualified identity in this space

**Sludge Quarterly Analysis      January-March, 2012**

<b>Nutrients</b>													
Batch#	Lab ID#	Date	%TS	%TVS	TKN mg/kg	NH3-N mg/kg	NO3+NO2-N mg/kg	PAN mg/kg    lbs/ton		T.Phosphorus mg/kg    lbs/ton		T.Potassium mg/kg    lbs/ton	
BPQ1-12b	112-33	1/3/2012	11.8	8.8	64000.0	970.0	220.0	19614.0	39.2	36189.0	72.4	4200.0	8.4

<b>Metals</b>													
Batch#	Lab ID#	Date	Arsenic mg/kg	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Lead mg/kg	Mercury mg/kg	Molybdenum mg/kg	Nickel mg/kg	Selenium mg/kg	Zinc mg/kg	pH
BPQ1-12b	112-33	1/3/2012	<5	<.4	35.0	240.0	15.0	0.69	7.1	12.0	10.0	450.0	5.8

**Sludge Quarterly Analysis      April-June, 2012**

<b>Nutrients</b>													
Batch#	Lab ID#	Date	%TS	%TVS	TKN mg/kg	NH3-N mg/kg	NO3+NO2-N mg/kg	PAN mg/kg    lbs/ton		T.Phosphorus mg/kg    lbs/ton		T.Potassium mg/kg    lbs/ton	
BPQ2-12b	412-23	4/2/2012	13.0	8.63	45000.0	1804.0	1200.0	15061.0	30.1	41168.0	82.3	4400.0	8.8

<b>Metals</b>													
Batch#	Lab ID#	Date	Arsenic mg/kg	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Lead mg/kg	Mercury mg/kg	Molybdenum mg/kg	Nickel mg/kg	Selenium mg/kg	Zinc mg/kg	pH
BPQ2-12b	412-23	4/2/2012	<5	<.4	35.0	280.0	15.0	0.34	8.7	17.0	<7	580.0	4.9

**Sludge Quarterly Analysis      July-September, 2012**

<b>Nutrients</b>													
Batch#	Lab ID#	Date	%TS	%TVS	TKN mg/kg	NH3-N mg/kg	NO3+NO2-N mg/kg	PAN mg/kg    lbs/ton		T.Phosphorus mg/kg    lbs/ton		T.Potassium mg/kg    lbs/ton	
BPQ3-12b	712-22	7/2/2012	14.0	9.2	53000.0	1424.0	480.0	16665.0	33.3	47151.0	94.3	3200.0	6.4

<b>Metals</b>													
Batch#	Lab ID#	Date	Arsenic mg/kg	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Lead mg/kg	Mercury mg/kg	Molybdenum mg/kg	Nickel mg/kg	Selenium mg/kg	Zinc mg/kg	pH
BPQ3-12b	712-22	7/2/2012	<5	<.4	25.0	220.0	6.6	0.55	5.6	13.0	<7	410.0	3.9

**Sludge Quarterly Analysis      October-December, 2012**

<b>Nutrients</b>													
Batch#	Lab ID#	Date	%TS	%TVS	TKN mg/kg	NH3-N mg/kg	NO3+NO2-N mg/kg	PAN mg/kg    lbs/ton		T.Phosphorus mg/kg    lbs/ton		T.Potassium mg/kg    lbs/ton	
BPQ4-12b	1012-99	10/8/2012	13.5	9.5	60000.0	1780.0	88.0	18444.0	36.9	55000.0	110.0	4500.0	9.0

<b>Metals</b>													
Batch#	Lab ID#	Date	Arsenic mg/kg	Cadmium mg/kg	Chromium mg/kg	Copper mg/kg	Lead mg/kg	Mercury mg/kg	Molybdenum mg/kg	Nickel mg/kg	Selenium mg/kg	Zinc mg/kg	pH
BPQ4-12b	1012-99	10/8/2012	<5	1.2	23.0	280.0	9.5	0.48	6.8	12.0	<7	690.0	4.1





I certify, under penalty of law, that analysis for biosolids and soil analyses are performed in accordance with EPA Document SW-846, "Test Methods for Evaluation of Solid Waste", or other procedures approved by the Director of ADEQ.

*David D'Amico*


---

Signature

6-20-12

---

Date



**DAVID D'AMICO**  
LABORATORY DIRECTOR

1702 East Central, Ste. 10 • Bentonville, AR 72712  
(479) 271-7996 • Fax (479) 271-8394  
dadamico@etestg.com

\*provide a proof of qualified identity in this space



*State of Arkansas*  
*Department of Environmental Quality*  
*Laboratory Certification Program*

**Environmental Testing Group, Inc.**  
**Bentonville, AR**

*has earned certification by law in accordance with Code Annotated §8-2-201 et seq., the State Environmental Laboratory Certification Program Act for the following parameters:*

Alkalinity	pH	Boron	Nickel	Ignitability
Ammonia	TDS	Cadmium	Potassium	
BOD	TKN	Calcium	Selenium	
CBOD	Total Phosphorus	Chromium	Silver	
Chlorine	Total Solids	Cobalt	Sodium	
COD	TSS	Copper	Thallium	
Conductivity	Turbidity	Iron	Tin	
Hardness	Aluminum	Lead	Titanium	
Nitrate	Antimony	Magnesium	Vanadium	
Nitrite	Arsenic	Manganese	Zinc	
Oil & Grease	Barium	Mercury	E-Coli	
Orthophosphate	Beryllium	Molybdenum	Fecal Coliform	

Laboratory ID: **04-0574**

Certificate Number: **12-069-0**

Issued Date: **19 October 2012**

Expired Date: **19 October 2013**

*Jeresa Markie*

**ADEQ Director**



January 16, 2013

City of Bentonville  
ATTN: Ms. Nancy Busen  
Lab/Pretreatment Supervisor  
1901 N.E. "A" Street  
Bentonville, AR 72712

Re: Biosolids Methodology

Dear Ms. Busen,

In response to your inquiry, I have attached a copy of American Interplex Corporation's current ADEQ Laboratory Certification for your records.

The methods used for biosolids analysis are cited on the analytical report. The biosolids analysis are performed in accordance with SW-846 Test Methods for Evaluating Solid Wastes for all parameters for which SW-846 has promulgated methodology.

Sincerely,

**AMERICAN INTERPLEX CORPORATION**

A handwritten signature in cursive script that reads 'Steve Bradford'.

Steve Bradford  
Deputy Laboratory Director

SB



*State of Arkansas*  
*Department of Environmental Quality*  
*Laboratory Certification Program*

**American Interplex Corporation**  
**Little Rock, AR**

*has earned certification by law in accordance with Code Annotated §8-2-201 et seq., the State Environmental Laboratory Certification Program Act for the following parameters:*

Acidity	Oil & Grease	Antimony	Mercury	Corrosivity
Alkalinity	Orthophosphate	Arsenic	Molybdenum	DRO
Ammonia	pH	Barium	Nickel	GRO
BOD	Phenol	Beryllium	Potassium	TPH
Bromide	Sulfate	Boron	Selenium	Acute Toxicity
CBOD	Surfactants	Cadmium	Silver	Chronic Toxicity
Chloride	TDS	Calcium	Sodium	Herbicides
Chlorine	TKN	Chromium	Strontium	Pesticides & PCBs
COD	TOC	Cobalt	Thallium	Semi-volatiles
Conductivity	Total Phosphorus	Copper	Tin	Volatile Organics
Cyanide	Total Solids	Hex. Chromium	Titanium	
Fluoride	TSS	Iron	Vanadium	
Hardness	Turbidity	Lead	Zinc	
Nitrate	Vol Solids	Magnesium	Fecal Coliform	
Nitrite	Aluminum	Manganese	Total Coliform	

Laboratory ID: **60-0889**

Certificate Number: **11-018-0**

Issued Date: **28 February 2011**

Expired Date: **28 February 2012**

**ADEQ Director**



*State of Arkansas*  
*Department of Environmental Quality*  
*Laboratory Certification Program*  
**American Interplex Corporation**  
**Little Rock, AR**

*has earned certification by law in accordance with Code Annotated §8-2-201 et seq., the State Environmental Laboratory Certification Program Act for the following parameters:*

Acidity	Oil & Grease	Antimony	Mercury	Total Coliform
Alkalinity	Orthophosphate	Arsenic	Molybdenum	Corrosivity
Ammonia	pH	Barium	Nickel	DRO
BOD	Phenol	Beryllium	Potassium	GRO
Bromide	Sulfate	Boron	Selenium	TOX
CBOD	Surfactants	Cadmium	Silver	TPH
Chloride	TDS	Calcium	Sodium	Acute Toxicity
Chlorine	TKN	Chromium	Strontium	Chronic Toxicity
COD	TOC	Cobalt	Thallium	Herbicides
Conductivity	Total Phosphorus	Copper	Tin	Pesticides & PCBs
Cyanide	Total Solids	Hex. Chromium	Titanium	Semi-volatiles
Fluoride	TSS	Iron	Vanadium	Volatile Organics
Hardness	Turbidity	Lead	Zinc	
Nitrate	Vol Solids	Magnesium	E-Coli	
Nitrite	Aluminum	Manganese	Fecal Coliform	

Laboratory ID: 60-0889

Certificate Number: 12-008-1

Issued Date: 12 November 2012

Expired Date: 28 February 2013

ADEQ Director



## Bentonville Wastewater Sludge DMR Report 2012

### Performed by American Interplex

### Method

TCLP Solids	EPA 1311
TCLP Volatile Organics	EPA 5030C, 8260C
TCLP Chlorinated Herbicides	EPA 8321A
TCLP Base Neutral Compounds	EPA 3510C, 8270D
Potassium	EPA 3051A, 6010C
Lead	EPA 3051A, 6010C
Cadmium	EPA 3051A, 6010C
Copper	EPA 3051A, 6010C
Nickel	EPA 3051A, 6010C
Zinc	EPA 3051A, 6010C
PCB	EPA 3550C, 8082A
Arsenic	EPA 3051A, 6010C
Chromium	EPA 3051A, 6010C
Mercury	EPA 7470A
Selenium	EPA 3051A, 6010C
Molybdenum	EPA 3051A, 6010C
Silver	EPA 3051A, 6010C
NO <sub>3</sub> <sup>-</sup> N	EPA 9056A
pH	EPA 9045C
TKN	SM 4500orgD
Total Phosphorous	EPA 3015A, 6010C
Ammonia as N	SM 4500 NH3-BG
Total Solids	SM 2540G

### Performed in House

Fecal Coliform	SM 9222 D
S.O.U.R	2710 B
Volatile Solids Reduction	2540 E
NH <sub>3</sub>	4500 NH3 D
Total Phosphorous	Procedure 81900 HACH
NO <sub>3</sub> <sup>-</sup> N	4500-NO <sub>3</sub> <sup>-</sup> E
Total Solids	2540 B,E
Total Residual Chlorine	Procedure 1450 HACH

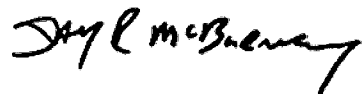
# CERTIFICATE OF RECOGNITION

*ERA congratulates  
CITY OF BENTONVILLE WWTF  
for your participation and successful evaluation in DMRQA-31. We  
recognize the performance of this laboratory for achieving acceptable  
evaluations for the following analytes.*

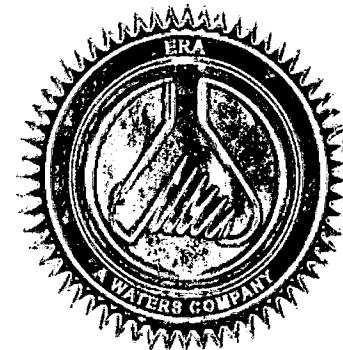
Ammonia as N  
BOD  
CBOD  
COD

Fecal Coliforms (MF)  
Fecal Coliforms (MPN)  
Nitrate + Nitrite as N  
Non-Filterable Residue (TSS)

pH  
Total phosphorus as P  
Total Residual Chlorine



Jay R. McBurney  
Quality Program Manager



C429101

## Disposal method and driver information

The City of Bentonville's land disposal program uses licensed operators from the Compost facility and the Wastewater treatment plant to apply the biosolids on permitted fields. The biosolids are applied by one Ford Truck chassis with drag-chain, hydraulic spinner style spreader bed. This allows for a more even distribution during the land application process.

The City of Bentonville uses licensed operators from the wastewater facility to haul the biosolids to the permitted fields. The operators used in 2012 are as follows.

McMahon, Joseph B. Signature Joseph B. McMahon

Schurman, David A. Signature David A. Schurman

King, Rickey D. Signature Rickey D. King

Signature \_\_\_\_\_



Beckloff1

<b>NAME :</b> James Beckloff	<b>YEAR :</b> 2012	<b>NOTES :</b>
<b>FIELD # :</b> 1	<b>ACRES :</b> 9.0	<b>NO3-N :</b> 30

APPLICATION DATA						SLUDGE QUARTERLY DATA Mg/Kg			FIELD LOADING DATA Lbs/Acre			GAL/ACRE
DATE	HAULER	LOADS	%SOLIDS	DRY TONS	CONTROL#	PAN	PHOS	POT	PAN	PHOS	POT	
									0.0	0.0	0.0	#DIV/0!
									0.0	0.0	0.0	#DIV/0!

AVG												
<b>TOTALS</b>		0.0	#DIV/0!	0.00					0.0	0.0	0.0	#DIV/0!
									PAN Loading available		90.0	

Beckloff2

<b>NAME :</b> James Beckloff	<b>YEAR :</b> 2012	<b>NOTES :</b>
<b>FIELD # :</b> 2	<b>ACRES :</b> 19.4	<b>NO3-N :</b> 23

APPLICATION DATA						SLUDGE QUARTERLY DATA Mg/Kg			FIELD LOADING DATA lbs/Acre			GAL/ACRE
DATE	HAULER	LOADS	%SOLIDS	DRY TONS	CONTROL#	PAN	PHOS	POT	PAN	PHOS	POT	
									0.0	0.0	0.0	#DIV/0!
									0.0	0.0	0.0	#DIV/0!
AVG												
<b>TOTALS</b>		<b>0.0</b>	<b>#DIV/0!</b>	<b>0.00</b>					<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>#DIV/0!</b>

PAN Loading available 97.0

<b>NAME :</b> <u>James Beckloff</u>		<b>YEAR :</b> <u>2012</u>		<b>NOTES :</b> <span style="border: 1px solid black; display: inline-block; width: 150px; height: 20px;"></span>								
<b>FIELD # :</b> <u>3</u>		<b>ACRES :</b> <u>17.5</u>		<b>NO3-N :</b> <u>56</u>								
APPLICATION DATA						SLUDGE QUARTERLY DATA Mg/Kg			FIELD LOADING DATA Lbs/Acre			GAL/ACRE
DATE	HAULER	LOADS	%SOLIDS	DRY TONS	CONTROL#	PAN	PHOS	POT	PAN	PHOS	POT	
									0.0	0.0	0.0	#DIV/0!
									0.0	0.0	0.0	#DIV/0!
AVG												
<b>TOTALS</b>		<b>0.0</b>	<b>#DIV/0!</b>	<b>0.00</b>					<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>#DIV/0!</b>
									<b>PAN Loading available</b>		64.0	

Beckloff4

NAME : <u>James Beckloff</u>	YEAR : <u>2012</u>	NOTES : <span style="border: 1px solid black; display: inline-block; width: 100%; height: 20px;"></span>
FIELD # : <u>4</u>	ACRES : <u>16.6</u>	NO3-N : <u>36</u>

APPLICATION DATA						SLUDGE QUARTERLY DATA Mg/Kg			FIELD LOADING DATA Lbs/Acre			GAL/ACRE
DATE	HAULER	LOADS	%SOLIDS	DRY TONS	CONTROL#	PAN	PHOS	POT	PAN	PHOS	POT	
									0.0	0.0	0.0	#DIV/0!
									0.0	0.0	0.0	#DIV/0!
AVG												
<b>TOTALS</b>		<b>0.0</b>	<b>#DIV/0!</b>	<b>0.00</b>					<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>#DIV/0!</b>
									PAN Loading available		84.0	

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

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CITY OF BENTONVILLE 1901 NE A ST BENTONVILLE	Client ID: 2715954 72712
Date Processed:	7/10/2012
Field ID:	BECK10F1
Acres:	9
Lime Applied in the last 4 years:	No
Leveled in past 4 years:	No
Irrigation:	Unknown
County:	Benton
Lab Number:	90825
Sample Number:	2220813

### 1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	450	900	Above Optimum <i>OK</i>
K	52	104	Very Low ✓
Ca	1269	2538	--
Mg	116	232	-- <i>OK</i>
SO4-S	20	40	-- <i>OK</i>
Zn	9.5	19.0	--
Fe	281	562	--
Mn	50	100	--
Cu	3.5	7.0	--
B	0.6	1.2	--
NO3-N			--

### 2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.6	<i>Low</i>
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
62.7	52.6	8.0	1.1	0.9

### 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 (203)						
Crop 1	60	0	120	0	0	0	4000
Crop 2							
Crop 3							

#### 4. Crop 1 Notes:

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

*Apply 60-120 lbs/A of Actual N+K from any source*

#### 5. Crop 2 Notes:

*See attached notes  
Rut*

#### 6. Crop 3 Notes:

*Lime Rate  
= 27/A*

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

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CITY OF BENTONVILLE 1901 NE A ST BENTONVILLE	Client ID: 2715954 AR 72712
Date Processed: 7/10/2012 Field ID: BECK10F2 Acres: 19 Lime Applied in the last 4 years: No Leveled in past 4 years: No Irrigation: Unknown	
County: Benton Lab Number: 90826 Sample Number: 2220814	

**1. Nutrient Availability Index**

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	366	732	Above Optimum <i>u</i>
K	88	176	Low ✓
Ca	1910	3820	--
Mg	150	300	-- <i>OK</i>
SO4-S	20	40	-- <i>OK</i>
Zn	13.0	26.0	--
Fe	291	582	--
Mn	54	108	--
Cu	8.3	16.6	--
B	0.8	1.6	--
NO3-N			--

**2. Soil Properties**

Property	Value	Units
Soil pH (1:2 soil-water)	6.2	<i>OK</i>
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
76.2	65.1	8.5	1.5	1.0

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

Crop		N	P2O5	K2O	SO4S	Zn	B	Lime
		lb/acre						
Last Crop	Pasture (203)							
Crop 1	Pasture - Cool-Season Grasses (MNT) (203)	60	0	<i>50</i>	0	0	0	0
Crop 2				<i>50</i>				
Crop 3				<i>50</i>				

**4. Crop 1 Notes:**

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

*Apply 60-0-60 lbs/A actual N+K from my source*

**5. Crop 2 Notes:**

*See attached notes  
Ruf*

**6. Crop 3 Notes:**

**Cooperative Extension Service**  
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<http://www.uark.edu/depts/soiltest>

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CITY OF BENTONVILLE 1901 NE A ST BENTONVILLE	Client ID: 2715954 AR 72712
Date Processed: 7/10/2012 Field ID: BECK10F3 Acres: 18 Lime Applied in the last 4 years: No Leveled in past 4 years: No Irrigation: Unknown	
County: Benton Lab Number: 90827 Sample Number: 2220815	

### 1. Nutrient Availability Index

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	957	1914	Above Optimum <i>OK</i>
K	163	326	Optimum <i>OK</i>
Ca	1969	3938	--
Mg	197	394	-- <i>OK</i>
SO4-S	34	68	-- <i>OK</i>
Zn	25.0	50.0	--
Fe	355	710	--
Mn	67	134	--
Cu	9.3	18.6	--
B	1.2	2.4	--
NO3-N			--

### 2. Soil Properties

Property	Value	Units
Soil pH (1:2 soil-water)	5.7	<i>Low</i>
Soil EC (1:2 soil-water)		umhos/cm
Soil ECEC	17	cmolc/kg
Organic Matter (Loss on Ignition)		%
Estimated Soil Texture	Silty Clay Loam - Clay Loam	

Estimated Base Saturation (%)				
Total	Ca	Mg	K	Na
70.7	57.8	9.6	2.5	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 (203)							
Crop 1: Pasture - Cool-Season Grasses (MNT) (203)	60	0	0	0	0	0	5000
Crop 2:							
Crop 3:							

#### 4. Crop 1 Notes:

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

*only Nitrogen and Lime needed  
 Apply 60 lbs/A Actual N*

#### 5. Crop 2 Notes:

*from any sources*

#### 6. Crop 3 Notes:

*Lime rate  
 = 2 1/2 T/A*

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CITY OF BENTONVILLE	Client ID:	2715954
1901 NE A ST		
BENTONVILLE	AR	72712
Date Processed:	7/10/2012	
Field ID:	BECK10F4	
Acres	17	
Lime Applied in the last 4 years:	No	
Leveled in past 4 years:	No	
Irrigation:	Unknown	
County:	Benton	
Lab Number:	90828	
Sample Number:	2220816	

**1. Nutrient Availability Index**

Nutrient	Concentration		Soil Test Level (Mehlich 3)
	ppm	lb/acre	
P	715	1430	Above Optimum <i>OK</i>
K	159	318	Optimum <i>OK</i>
Ca	1953	3906	--
Mg	169	338	-- <i>OK</i>
SO4-S	24	48	-- <i>OK</i>
Zn	16.2	32.4	--
Fe	323	646	--
Mn	72	144	--
Cu	10.2	20.4	--
B	1.2	2.4	--
NO3-N			--

**2. Soil Properties**

Property	Value	Units
Soil pH (1:2 soil-water)	6.1	<i>OK</i> --
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
77.0	64.2	9.3	2.7	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 (203)						
Crop 1	Pasture - Cool-Season Grasses (MNT) (203)						
Crop 2							
Crop 3							

**4. Crop 1 Notes:**

Apply the recommended rate of N, P, and K in late winter. For higher production apply an additional 50 lb N/Acre after every 4 to 6 weeks of grazing. For fall/winter grazing, apply 50 lbs N/Acre in late summer.

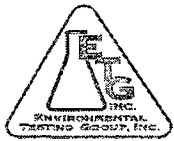
*Apply 60 lbs/A Actual N  
 from Ammonia*

**5. Crop 2 Notes:**

*Root*

**6. Crop 3 Notes:**





1702 East Central Avenue Suite 10  
 Bentonville, AR 72712  
 479-271-7996 phone  
 479-271-8394 fax

## Analytical Report

07/09/12 16:04

Client: City of Bentonville WWTP  
 117 W. Central  
 Bentonville, AR, 72712  
 Attn: Ms. Nancy Busen

Work Order: BF20194  
 Project Name: Beckloff soil  
 Project Number: Beckloff soil  
 Date Received: 06/22/12

### Beckloff #1 BF20194-01 (Soil) Sampled: 05/29/12 10:15

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
<b>Environmental Testing Group</b>											
<b>Metals by EPA 6000 Series Methods</b>											
7440-38-2	Arsenic	9.39		mg/kg dry	0.0850	0.0850	10	07/09/12 10:56	RMP	SW846 6020A	B2G0306
7440-43-9	Cadmium	0.184		"	0.0850	0.0850	"	"	RMP	"	"
7439-92-1	Lead	33.0		"	0.0850	0.0850	"	"	RMP	"	"
7439-97-6	Mercury	0.0753	J, Z	"	0.0396	0.0991	"	07/06/12 09:40	RMP	"	B2G0308
7440-02-2	Nickel	4.25		"	3.40	3.40	"	07/09/12 10:56	RMP	"	B2G0306
7782-49-2	Selenium	0.784		"	0.0850	0.0850	"	"	RMP	"	"
<b>Chemistry Parameters by APHA/EPA Methods</b>											
NA	Nitrate/Nitrite as N	15.0	Z	mg/kg dry		2.00	1	07/04/12 14:30	JHM	EPA 353.2	B2G0207
<b>Physical Parameters by APHA/ASTM/EPA Methods</b>											
NA	Specific Conductance (EC)	272		umhos/cm		2.50	1	06/26/12 10:03	MBM	EPA 120.1	B2F2607
NA	Total Solids	99.2	Z	% by Weight		0.0500	"	06/26/12 15:34	MBM	SM2540B	B2F2608

### Beckloff #2 BF20194-02 (Soil) Sampled: 05/29/12 12:53

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
<b>Environmental Testing Group</b>											
<b>Metals by EPA 6000 Series Methods</b>											
7440-38-2	Arsenic	4.66		mg/kg dry	0.0973	0.0973	10	07/09/12 10:56	RMP	SW846 6020A	B2G0306
7440-43-9	Cadmium	0.132		"	0.0973	0.0973	"	"	RMP	"	"
7439-92-1	Lead	16.8		"	0.0973	0.0973	"	"	RMP	"	"
7439-97-6	Mercury	0.0554	J, Z	"	0.0462	0.115	"	07/06/12 09:40	RMP	"	B2G0308
7440-02-2	Nickel	4.21		"	3.89	3.89	"	07/09/12 10:56	RMP	"	B2G0306
7782-49-2	Selenium	0.711		"	0.0973	0.0973	"	"	RMP	"	"
<b>Chemistry Parameters by APHA/EPA Methods</b>											
NA	Nitrate/Nitrite as N	11.6	Z	mg/kg dry		1.99	1	07/04/12 14:30	JHM	EPA 353.2	B2G0207
<b>Physical Parameters by APHA/ASTM/EPA Methods</b>											
NA	Specific Conductance (EC)	312		umhos/cm		2.50	1	06/26/12 10:03	MBM	EPA 120.1	B2F2607
NA	Total Solids	99.2	Z	% by Weight		0.0500	"	06/26/12 15:34	MBM	SM2540B	B2F2608

Environmental Testing Group

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 Bentonville, AR 72712  
 479-271-7996 phone  
 479-271-8394 fax

## Analytical Report

07/09/12 16:04

Client: City of Bentonville WWTP  
 117 W. Central  
 Bentonville AR, 72712

Work Order: BF20194  
 Project Name: Beckloff soil  
 Project Number: Beckloff soil

Attn: Ms. Nancy Busen

Date Received: 06/22/12

**Beckloff #2**  
**BF20194-02 (Soil) Sampled: 05/29/12 12:53**

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
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**Beckloff #3**  
**BF20194-03 (Soil) Sampled: 05/29/12 14:50**

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
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**Environmental Testing Group**

**Metals by EPA 6000 Series Methods**

7440-38-2	Arsenic	5.35		mg/kg dry	0.0854	0.0854	10	07/09/12 10:56	RMP	SW846 6020A	B2G0306
7440-43-9	Cadmium	0.190		"	0.0854	0.0854	"	"	RMP	"	"
7439-92-1	Lead	16.4		"	0.0854	0.0854	"	"	RMP	"	"
7439-97-6	Mercury	0.136	Z	"	0.0484	0.121	"	07/06/12 09:40	RMP	"	B2G0308
7440-02-2	Nickel	6.14		"	3.42	3.42	"	07/09/12 10:56	RMP	"	B2G0306
7782-49-2	Selenium	1.16		"	0.0854	0.0854	"	"	RMP	"	"

**Chemistry Parameters by APHA/EPA Methods**

NA	Nitrate/Nitrite as N	28.2	Z	mg/kg dry		1.99	1	07/04/12 14:30	JHM	EPA 353.2	B2G0207
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**Physical Parameters by APHA/ASTM/EPA Methods**

NA	Specific Conductance (EC)	500		umhos/cm		2.50	1	06/26/12 10:03	MBM	EPA 120.1	B2F2607
NA	Total Solids	98.9	Z	% by Weight		0.0500	"	06/26/12 15:34	MBM	SM2540B	B2F2608

**Beckloff #4**  
**BF20194-04 (Soil) Sampled: 05/29/12 14:00**

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
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**Environmental Testing Group**

**Metals by EPA 6000 Series Methods**

7440-38-2	Arsenic	14.8		mg/kg dry	0.0861	0.0861	10	07/09/12 10:56	RMP	SW846 6020A	B2G0306
7440-43-9	Cadmium	0.256		"	0.0861	0.0861	"	"	RMP	"	"
7439-92-1	Lead	78.0		"	0.0861	0.0861	"	"	RMP	"	"
7439-97-6	Mercury	0.0786	J, Z	"	0.0462	0.116	"	07/06/12 09:40	RMP	"	B2G0308
7440-02-2	Nickel	6.42		"	3.44	3.44	"	07/09/12 10:56	RMP	"	B2G0306
7782-49-2	Selenium	0.993		"	0.0861	0.0861	"	"	RMP	"	"

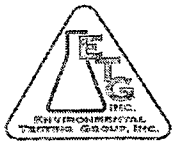
**Chemistry Parameters by APHA/EPA Methods**

NA	Nitrate/Nitrite as N	18.0	Z	mg/kg dry		2.00	1	07/04/12 14:30	JHM	EPA 353.2	B2G0207
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**Physical Parameters by APHA/ASTM/EPA Methods**

Environmental Testing Group

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# Analytical Report

1702 East Central Avenue Suite 10  
Bentonville, AR 72712  
479-271-7996 phone  
479-271-8394 fax

07/09/12 16:04

Client: City of Bentonville WWTP  
117 W. Central  
Bentonville AR, 72712

Work Order: BF20194  
Project Name: Beckloff soil  
Project Number: Beckloff soil

Attn: Ms. Nancy Busen

Date Received: 06/22/12

## Beckloff #4

BF20194-04 (Soil) Sampled: 05/29/12 14:00

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
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### Environmental Testing Group

#### Physical Parameters by APHA/ASTM/EPA Methods

NA	Specific Conductance (EC)	354		umhos/cm		2.50	1	06/26/12 10:03	MBM	EPA 120.1	B2F2607
NA	Total Solids	99.2	Z	% by Weight		0.0500	"	06/26/12 15:34	MBM	SM2540B	B2F2608

Environmental Testing Group

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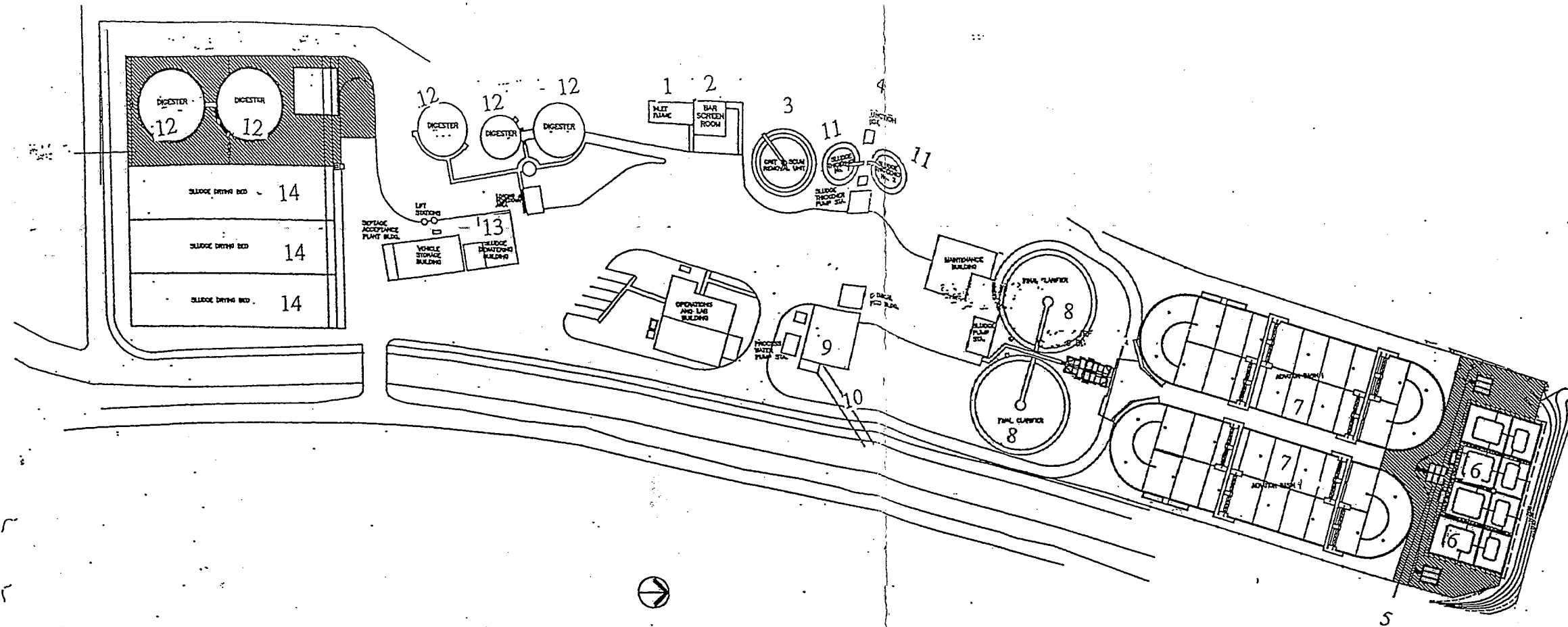


1702 East Central Avenue  
Bentonville, AR 72712  
Ph: (479) 271-7996  
Fx: (479) 271-8394

# CHAIN OF CUSTODY RECORD

CLIENT INFORMATION				Reporting Information				Bottle Type:				Preservation Codes:									
City of Bentonville WWTP 1901 N.E. "A" St. Bentonville, AR 72712				Project Name: E-Mail: Telephone: Fax: Bill to P.O.#:				A) 1 Liter Poly				1. Cool, 4 Degrees Centigrade Non-preserved				4. Thiosulfate for Dechlorination					
								B) 500 mL Poly				2. Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ), pH < 2				5. Hydrochloric Acid (HCl)					
								C) 250 mL Poly				3. Nitric Acid (HNO <sub>3</sub> ), pH < 2				6. Sodium Hydroxide (NaOH), pH > 12					
								D) 1 L Amber Glass								7. H <sub>3</sub> PO <sub>4</sub> Phosphoric Acid					
								E) 330 mL Amber Glass													
								F) 100 mL Snap Cap													
								G) 43 mL VOA													
Customer Number: 1201				Project Manager:				Preservative Code:				TEST PARAMETERS									
Sampler(s) Signature: <i>Mona Higgins</i>				Sampler(s) Printed: <i>Mark Higgins</i>				Bottle Type:													
Name: <i>Mona Higgins</i>				Name: <i>Dave Schurman</i>																	
Signature: <i>[Signature]</i>				Signature: <i>[Signature]</i>																	
LAB ID #	SAMPLE COLLECTION		Grab	Comp	Number of Bottles	Sample Matrix S=Solid W=Water	SAMPLE IDENTIFICATION / DESCRIPTION		TEST PARAMETERS												
	Date/s	Time/s							Aluminum	Ammonium	Barium	Biochemical	Cadmium	Copper	Fluoride	Iron	Lead	Manganese	Nickel	Nitrate-N	Conductivity
BF 20194-01	5/29/12	10:15	X		1	S	Beckloff #1														
-02	5/29/12	12:53	X		1	S	Beckloff #2														
-03	5/29/12	14:50	X		1	S	Beckloff #3														
-04	5/29/12	14:00	X		1	S	Beckloff #4														
										<b>BF20194-01 A</b> Beckloff #1 Sampled: 05/29/12 10:15 Soil-Work Order Label City of Bentonville WWTP											
1. Relinquished by: (Signature)		Date/Time		2. Received by: (Signature)				SAMPLE CONDITION UPON RECEIPTS IN LAB				REMARKS / COMMENTS									
<i>[Signature]</i>		6/20/12 10:15		<i>[Signature]</i>				1. CUSTODY SEALS: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 2. CONTAINERS CORRECT: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 3. COC/LABELS AGREE: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 4. PRESERVATION CONFIRMED: Yes <input type="checkbox"/> No <input type="checkbox"/> 5. RECEIVED ON ICE: Yes <input type="checkbox"/> No <input type="checkbox"/> 6. TEMPERATURE UPON RECEIPT: 20 °C													
3. Relinquished by: (Signature)		Date/Time		4. Received by lab: (Signature)				FOR COMPLETION BY LAB ONLY				FEDEX UPS									
		↓		<i>[Signature]</i>																	

Receipt of samples by Environmental Testing Group, Inc. acknowledges acceptance of Standard Terms and Conditions (available upon request).



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|--------------------------------|---------------------------------|
| 1. 18" Influent Parshall Flume | 8. Final Clarifiers             |
| 2. Bar Screen                  | 9. UV Disinfection System       |
| 3. Grit Chamber                | 10. 24" Effluent Parshall Flume |
| 4. Diversion Box               | 11. Gravity Thickeners          |
| 5. Flow Splitter Box           | 12. Aerobic Digesters           |
| 6. Anoxic Basins               | 13. Belt Filter Press           |
| 7. Aeration Basins             | 14. Drying Beds                 |

Bentonville Wastewater Department  
 Process for treating biosolids  
 According to 40 CFR Part 503

Solids are removed from the aeration basins after a detention time of approximately 20 days.  
 Solids are then transferred to aerobic digesters and stabilized for approximately 25 days.  
 Pathogen reduction is established by Fecal Coliform analyses and vector attraction is confirmed by volatile solids reduction or S.O.U.R.  
 Dewatering is accomplished by means of a belt filter press.  
 Disposal options include land application and composting.

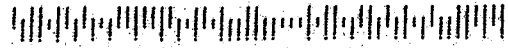
Mike Roberts

Bentonvi

1901 N.E.

Bentonvil

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT  
OF THE RETURN ADDRESS LINE



7011 2000 0002 3668 2642



02 1R  
0006556020

\$ 07.57<sup>0</sup>

MAR 18 2013

MAILED FROM ZIP CODE 72745

ADEQ  
5301 Northshore Drive  
North Little Rock, AR 72118-5317