

ADEQ

A R K A N S A S
Department of Environmental Quality

July 10, 2015

Sam Zehtaban, Operations Manager
Jacksonville Waste Water
248 Cloverdael Rd
Jacksonville, AR 72076

RE: Jacksonville Waste Water Inspection
AFIN: 60-00543 Permit No.: AR0041335

Dear Mr. Zehtaban,

On June 24, 2015, I performed a Compliance Sampling Inspection and a Sanitary Sewer Overflow Inspection of the above referenced facility in accordance with the provisions of the Federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the regulations promulgated thereunder. A copy of the inspection report is enclosed for your records.


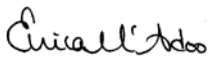

No violations were noted at the time of the inspection. Please refer to the attached inspection report for any comments.

If I can be of any assistance, please contact me at mcadoo@adeq.state.ar.us or 501-683-0827.

Sincerely,



Erica McAdoo
District 9 Field Inspector
Water Division

 A R K A N S A S Department of Environmental Quality		WATER DIVISION INSPECTION REPORT						
		AFIN: 60-00543		PERMIT #: AR0041335		DATE: 6/24/2015		
		COUNTY: 60 Pulaski			PDS #: 085125		MEDIA: WN	
		GPS LAT:		LONG: -		LOCATION: General Area		
FACILITY INFORMATION				INSPECTION INFORMATION				
NAME: Jacksonville Waste Water LOCATION: 248 Cloverdale Rd. CITY: Jacksonville				FACILITY TYPE: 1 - Municipal		INSPECTOR ID#: 27312 S - State		
				FACILITY EVALUATION RATING: 5 - Satisfactory		INSPECTION TYPE: Compliance Sampling		
				DATE(S): 6/24/2015	ENTRY TIME: 09:00	EXIT TIME: 10:00	PERMIT EFFECTIVE DATE: 11/1/2012	
								PERMIT EXPIRATION DATE: 10/31/2017
RESPONSIBLE OFFICIAL				FAYETTEVILLE SHALE RELATED: N				
NAME / TITLE: Sam Zehtaban / Operations Manager COMPANY: Jacksonville Waste Water MAILING ADDRESS: 248 Cloverdael Rd CITY, STATE, ZIP: Jacksonville AR 72076 PHONE & EXT: / FAX: / EMAIL:				FAYETTEVILLE SHALE VIOLATIONS: N				
CONTACTED DURING INSPECTION: Yes				INSPECTION PARTICIPANTS				
				NAME/TITLE/PHONE/FAX/EMAIL/ETC.: Mike Overstreet, Operations Manager Bruce Jones, Treatment Supervisor Jason Bolenbaugh, ADEQ Erica McAdoo, ADEQ				
AREA EVALUATIONS								
(S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Applicable/Evaluated)								
S	PERMIT	S	FLOW MEASUREMENT	S	STORMWATER			
S	RECORDS/REPORTS	N	LABORATORY	S	FACILITY SITE REVIEW			
S	OPERATION & MAINTENANCE	S	EFFLUENT/RECEIVING WATER	S	SELF-MONITORING PROGRAM			
S	SAMPLING	S	SLUDGE HANDLING/DISPOSAL	N	PRETREATMENT			
**	OTHER:							
SUMMARY OF FINDINGS								
The final effluent (Outfall 001) sampled on June 24, 2015 did not result in any discharge limitation permit violations (see Part I, Section A).								
GENERAL COMMENTS								
On June 23, 2015, the above inspection participants were present during the Compliance Sampling Inspection (CSI) of final effluent discharged via Outfall 001 (see Figure 1). The permittee had programmed the composite sampler (24-hour composite) on June 22, 2015 and was prepared to split samples with the Department. ADEQ also collected grab samples for Dissolved oxygen, Fecal Coliform Bacteria, Total Phosphorus, and pH during the CSI. See Chain of Custody, ADEQ lab analyses sheets, and Table 1.								
INSPECTOR'S SIGNATURE: 				ERICA MCADOO		DATE: 7/9//2015		
SUPERVISOR'S SIGNATURE: 				JASON BOLENBAUGH		DATE: 7/10/2015		

SECTION I: SAMPLING INSPECTION PROCEDURES	
SAMPLE RESULTS WITHIN PERMIT REQUIREMENTS	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. SAMPLES OBTAINED THIS INSPECTION: CBOD5, NH3-N, DO, FCB, TP, pH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. TYPE OF SAMPLE: <input checked="" type="checkbox"/> GRAB:___ <input checked="" type="checkbox"/> COMPOSITE:___ METHOD:___ FREQUENCY:	
3. SAMPLES PRESERVED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
4. FLOW PROPORTIONED SAMPLES OBTAINED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
6. SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
7. SAMPLE SPLIT WITH PERMITTEE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE

Table 1. Effluent Limitations and Monitoring Requirements: Outfall 001

Effluent Characteristics	Discharge Limitation Permit Limits			Sample Results			Frequency	Sample Type
	Mass (lbs/day)	Concentration (mg/l)		Mass (lbs/day)	Concentration (mg/l)			
	Monthly Avg.	Monthly Avg.	7-Day Avg.	Monthly Avg.	Monthly Avg.	7-Day Avg.		
Flow	N/A	Report MGD	Report MGD (daily Max)		3 mgd		Daily	Totalizing Meter
CBOD5	1027	10	15	107.586	4.3	4.3	Once/week	24hr composite
TSS	1540	15	22.5	25.02	<1.0	<1.0	Once/week	24hr composite
NH3-N (Apr- Oct)	226	2.2	5.6	7.506	<0.3	<0.3	Once/week	24hr composite
Dissolved Oxygen	N/A	6 Inst. Min.		N/A	7.2	7.2	Once/week	Grab
Total Phosphorus (TP)	N/A	Report	Report	N/A	2.73	2.73	Once/week	Grab
Fecal Coliform Bacteria (Apr-Sept)	N/A	200	400	N/A	~53	~53	Once/week	Grab
pH	N/A	<u>Minimum</u> 6	<u>Maximum</u> 9	N/A	6.33 su	6.33 su	Once/week	Grab

Figure 1: Google Earth Image





Facility, Project, Complaint Name, Property Owner		AFIN #/ County		Sample Characteristics				Parameters Requested		ADQC Division or Other (Describe)		Media Code		Preservation Code					
Jacksonville AR 0041335		Pulaski		Sample ID	Date collected mm/dd/yyyy	Time collected hh:mm	Grab	Composite	No. of Containers	Preservation Code	Media Code	TSS NH ₃ -N	TP	FCB	CBOD5	<input type="checkbox"/> CSI <input type="checkbox"/> Other Compliance <input type="checkbox"/> Complaint <input type="checkbox"/> Fish Kill <input type="checkbox"/> Other (describe)		W = water G = groundwater L = liquid (not water) S = soil or solid E = edible tissue F = whole fish B = other	A = Cool to 4°C B = Sulfuric Acid C = Nitric Acid D = NaOH E = Sodium Thiosulfate F = Other (specify)
Price Mr. Adcox				AR0041335	6/24/15	0739	✓		3	A	W	✓	✓	✓	✓				
Price Mr. Adcox				AR0041335	6/24/15	0741	✓		3	A	W	✓	✓	✓	✓				
Reinquished by		Date		Time		Received by		Date		Time		Notes		Date		Time		Received for Laboratory by	
E. S. Adcox		6-24-15		1000		[Signature]		6/24/15		1000		DO 7.20 mg/L DO 7.20 mg/L pH 6.37 temp 26.5°C		6/24/15		1000		[Signature]	



5301 Northshore Drive
North Little Rock, AR 72118
Telephone: 501-682-0744

Client Report For: Jacksonville CSI AR0041335 2015 1616
Attention:
Client Address:

,

Report Date: July 02, 2015
LAB ID: AR15JUN24-03
Comment:

Approved By: _____

Date: July 02, 2015

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

Client: CSI **Client Sample ID:** AR0041335
Lab ID: 2015-1616 **Collection Date:** 6/24/2015 7:39:00 AM
Matrix: Water

Analyses

<i>Fecal Coliforms</i>	<i>SM 9222 D</i>	<i>Batch: 15062502 Run: 1</i>			
	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Fecal Coliforms	~53	4	4		cfu/100ml
Analyzed By	Melanie Treat				
Analysis Date/Time	6/24/2015 11:00				

Client: CSI	Client Sample ID: AR0041335
Lab ID: 2015-1616	Collection Date: 6/24/2015 7:39:00 AM
Matrix: Water	

Analyses

Ammonia as Nitrogen	SM 4500-NH3 H (20th)	Batch: 15070102 Run: 1			
	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Ammonia as N	<0.3	0.3	0.03		mg/L
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/24/2015 2:55:31 PM				

Carb. Biochemical Oxygen Demand (CBOD) 5 Day	SM 5210-B	Batch: 15070202 Run: 1			
	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Carbonaceous BOD	4.3	0.2	0.2		mg/L
Analyzed By	Robert Graddy				
Analysis Date/Time	6-24-2015 13:44				

Total Dissolved Solids	EPA 160.1	Batch: 15062909 Run: 1			
	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Total Dissolved Solids	208	5.0	5.0		mg/L
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 9:00				

Total Suspended Solids	EPA 160.2	Batch: 15062908 Run: 1			
	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Total Suspended Solids	<1.0	1.0	1.0		mg/L
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 7:30				

Total Phosphorus	SM 4500-P J (20th)	Batch: 15070105 Run: 1			
	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Phosphorus-total	2.73	0.1	0.02		mg/L

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

Dilution Factor	5
Analyzed By	Patrick Rawhouser
Analysis Date/Time	6/25/2015 10:47:37 AM

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

Client: CSI **Client Sample ID:** AR0041335
Lab ID: 2015-1616 **Collection Date:** 6/24/2015 7:39:00 AM
Matrix: Water

Analyses

Field Data

Batch: 15070210 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Dissolved Oxygen	7.2				mg/L
pH	6.33				SU
Temperature	26.5				C
Analyzed By	Erica McAdoo				
Analysis Date/Time	6/24/2015 07:39				

Analytical Quality Control Results Report

Batch: 15062502	Fecal Coliforms - water
AR0041335	LIMS ID: 2015-1616

Fecal Coliforms DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Fecal Coliforms (RPD)	0 %				0 - 20
Fecal Coliforms	~49 cfu/100ml	4	4		
Analysis Date/Time	6/24/2015 11:00				
Analyzed By	Melanie Treat				

Analytical Quality Control Results Report

Batch: 15070202	CBOD5 - water
AR0041335	LIMS ID: 2015-1616

CBOD - water DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Carbonaceous BOD (RPD)	3.4 %				0 - 20
Carbonaceous BOD	4.45 mg/L	0.2	0.2		
Analyzed By	Robert Graddy				
Analysis Date/Time	6-24-2015 13:44				

MB	LIMS ID: 15070202-MB-01
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CBOD - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Carbonaceous BOD	<0.2 mg/L	0.2	0.2		
Analyzed By	Robert Graddy				
Analysis Date/Time	6-24-2015 13:44				

LCS	LIMS ID: 15070202-LCS-01
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CBOD - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Carbonaceous BOD (% Recovery)	81.3 %			80 - 120	
Analyzed By	Robert Graddy				
Analysis Date/Time	6-24-2015 13:44				

LCS	LIMS ID: 15070202-LCS-02
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CBOD - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Carbonaceous BOD (% Recovery)	78.8 %			80 - 120	
Analyzed By	Robert Graddy				
Analysis Date/Time	6-24-2015 13:44				

Analytical Quality Control Results Report

Batch: 15062908	TSS - water
AR0041335	LIMS ID: 2015-1616

Solids, Total Suspended - water DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Total Suspended Solids (RPD)	90.9 %				0 - 20
Total Suspended Solids	<1 mg/L	1	1		
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 7:30				

MB	LIMS ID: 15062908-MB-01
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Solids, Total Suspended - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Total Suspended Solids	<1 mg/L	1	1		
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 7:30				

LCS	LIMS ID: 15062908-LCS-01
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Solids, Total Suspended - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Total Suspended Solids (% Recovery)	98.2 %			90 - 110	
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 7:30				

MB	LIMS ID: 15062908-MB-02
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Solids, Total Suspended - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Total Suspended Solids	<1 mg/L	1	1		
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 7:30				

LCS	LIMS ID: 15062908-LCS-02
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Solids, Total Suspended - water LCS

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Total Suspended Solids (% Recovery)	99.5 %			90 - 110	
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 7:30				

MB	LIMS ID: 15062908-MB-03
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Solids, Total Suspended - water MB **Run: 1**

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Total Suspended Solids	<1 mg/L	1	1		
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 7:30				

LCS	LIMS ID: 15062908-LCS-03
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Solids, Total Suspended - water LCS **Run: 1**

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Total Suspended Solids (% Recovery)	100 %			90 - 110	
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 7:30				

MB	LIMS ID: 15062908-MB-04
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Solids, Total Suspended - water MB **Run: 1**

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Total Suspended Solids	<1 mg/L	1	1		
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 7:30				

LCS	LIMS ID: 15062908-LCS-04
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Solids, Total Suspended - water LCS **Run: 1**

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Total Suspended Solids (% Recovery)	100 %			90 - 110	
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 7:30				

Analytical Quality Control Results Report

Batch: 15062909	TDS - water
AR0041335	LIMS ID: 2015-1616

Solids, Total Dissolved - water DUP **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Total Dissolved Solids	219 mg/L	5	5		
Total Dissolved Solids (RPD)	5 %				0 - 20
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 9:00				

MB	LIMS ID: 15062909-MB-01
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Solids, Total Dissolved - water MB **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Total Dissolved Solids	<5.0 mg/L	5	5		
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 9:00				

LCS	LIMS ID: 15062909-LCS-01
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Solids, Total Dissolved - water LCS **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Total Dissolved Solids (% Recovery)	103 %			90 - 110	
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 9:00				

MB	LIMS ID: 15062909-MB-02
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Solids, Total Dissolved - water MB **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Total Dissolved Solids	<5.0 mg/L	5	5		
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 9:00				

LCS	LIMS ID: 15062909-LCS-02
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Solids, Total Dissolved - water LCS **Run: 1**

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Total Dissolved Solids (% Recovery)	100 %			90 - 110	
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 9:00				

MB	LIMS ID: 15062909-MB-03
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Solids, Total Dissolved - water MB **Run: 1**

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Total Dissolved Solids	<5.0 mg/L	5	5		
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 9:00				

LCS	LIMS ID: 15062909-LCS-03
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Solids, Total Dissolved - water LCS **Run: 1**

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Total Dissolved Solids (% Recovery)	100 %			90 - 110	
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 9:00				

MB	LIMS ID: 15062909-MB-04
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Solids, Total Dissolved - water MB **Run: 1**

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Total Dissolved Solids	<5.0 mg/L	5	5		
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 9:00				

LCS	LIMS ID: 15062909-LCS-04
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Solids, Total Dissolved - water LCS **Run: 1**

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Total Dissolved Solids (% Recovery)	101 %			90 - 110	
Analyzed By	Kathryn Hattenhauer				
Analysis Date/Time	6/24/2015 9:00				

Analytical Quality Control Results Report

Batch: 15070102	Lachat - Ammonia (water)
AR0041335	LIMS ID: 2015-1616

Ammonia as N - water DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Ammonia as N	<0.3 mg/L	0.3	0.3		
Ammonia as N (RPD)	20.5 %				0 - 20
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/24/2015 2:56:33 PM				

MB	LIMS ID: 15070102-MB-01
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Ammonia as N - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Ammonia as N	<0.03 mg/L	0.03	0.03		
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/24/2015 12:59:56 PM				

LCS	LIMS ID: 15070102-LCS-01
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Ammonia as N - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Ammonia as N (% Recovery)	98.8 %			80 - 120	
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/24/2015 1:00:59 PM				

MB	LIMS ID: 15070102-MB-02
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Ammonia as N - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Ammonia as N	<0.03 mg/L	0.03	0.03		
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/24/2015 1:35:17				

PM

LCS **LIMS ID: 15070102-LCS-02**

Ammonia as N - water LCS **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Ammonia as N (% Recovery)	99.3 %			80 - 120	
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/24/2015 1:36:20 PM				

MB **LIMS ID: 15070102-MB-03**

Ammonia as N - water MB **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Ammonia as N	<0.03 mg/L	0.03	0.03		
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/24/2015 2:05:30 PM				

LCS **LIMS ID: 15070102-LCS-03**

Ammonia as N - water LCS **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Ammonia as N (% Recovery)	107 %			80 - 120	
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/24/2015 2:06:32 PM				

MB **LIMS ID: 15070102-MB-04**

Ammonia as N - water MB **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Ammonia as N	<0.03 mg/L	0.03	0.03		
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/24/2015 2:40:55 PM				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

LCS **LIMS ID: 15070102-LCS-04**

Ammonia as N - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Ammonia as N (% Recovery)	102 %			80 - 120	
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/24/2015 2:41:58 PM				

Analytical Quality Control Results Report

Batch: 15070105	Lachat - TP (water)
AR0041335	LIMS ID: 2015-1616

TP (Total Phosphorus) - water DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Phosphorus-total (RPD)	0.7 %				0 - 20
Phosphorus-total	2.71 mg/L	0.1	0.1		
Dilution Factor	5				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/25/2015 10:48:37 AM				

MB	LIMS ID: 15070105-MB-01
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TP (Total Phosphorus) - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Phosphorus-total	<0.02 mg/L	0.02	0.02		
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/25/2015 9:42:08 AM				

LCS	LIMS ID: 15070105-LCS-01
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TP (Total Phosphorus) - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Phosphorus-total (% Recovery)	92.0 %			80 - 120	
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/25/2015 9:43:08 AM				

MB	LIMS ID: 15070105-MB-02
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TP (Total Phosphorus) - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Phosphorus-total	<0.02 mg/L	0.02	0.02		
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/25/2015				

10:16:20 AM

LCS **LIMS ID: 15070105-LCS-02**

TP (Total Phosphorus) - water LCS **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Phosphorus-total (% Recovery)	100 %			80 - 120	
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/25/2015 10:17:22 AM				

MB **LIMS ID: 15070105-MB-03**

TP (Total Phosphorus) - water MB **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Phosphorus-total	<0.02 mg/L	0.02	0.02		
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/25/2015 10:45:36 AM				

LCS **LIMS ID: 15070105-LCS-03**

TP (Total Phosphorus) - water LCS **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Phosphorus-total (% Recovery)	97.0 %			80 - 120	
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/25/2015 10:46:37 AM				

MB **LIMS ID: 15070105-MB-04**

TP (Total Phosphorus) - water MB **Run: 1**

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Phosphorus-total	<0.02 mg/L	0.02	0.02		
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/25/2015 11:17:52 AM				

Arkansas Department of Environmental Quality
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Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

LCS **LIMS ID: 15070105-LCS-04**

TP (Total Phosphorus) - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Phosphorus-total (% Recovery)	101 %			80 - 120	
Dilution Factor	1				
Analyzed By	Patrick Rawhouser				
Analysis Date/Time	6/25/2015 11:18:53 AM				