ADEQ
ARKANSAS
Department of Environmental Quality

February 25, 2016

Mark Yardley, Director of Public Works
City of Alma
811 Fayetteville Ave
Alma, AR 72921

RE: City of Alma WWTPInspections (Crawford Co)
AFIN: 17-00059 **Permit No.: AR0021466**
ARR000321
5068-WR-1
ARG640009

Dear Mr. Yardley:

On January 28 and 29, 2016, I performed a Compliance Evaluation Inspection, a SSO/Collection System Inspection, an Industrial Stormwater Inspection, and a State Land Application Inspection of the City's Wastewater Treatment Plant. Additionally, I conducted a Compliance Evaluation Inspection of the City's Water Treatment Plant filter backwash system. These inspections were conducted in accordance with the provisions of the Federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the regulations promulgated thereunder. Copies of the inspection reports are enclosed for your records.

Please refer to the "Summary of Findings" section of each of the attached inspection reports and provide a written response for each violation that was noted. This response should be mailed to the attention of the Water Division Inspection Branch at the address at the bottom of this letter or e-mailed to Water-Inspection-Report@adeq.state.ar.us. This response should contain documentation describing the course of action taken to correct each item noted. This corrective action should be completed as soon as possible, and the written response with all necessary documentation (i.e., photos) is due by **March 14, 2016**

If I can be of any assistance, please contact me at mccabe@adeq.state.ar.us or (501) 682-0642.

Sincerely,

Kerri McCabe
Inspector Supervisor
Water Division

ADEQ
ARKANSAS
Department of Environmental Quality

WATER DIVISION INSPECTION REPORT

AFIN: **17-00059**	PERMIT #: **AR0021466**	DATE: **1/28/2016**
COUNTY: **17 Crawford**	PDS #: **089297**	MEDIA: **WN**
GPS LAT:	LONG:	LOCATION: **Entrance**

FACILITY INFORMATION

NAME:
City of Alma WWTP
LOCATION:
2500 Orrick Rd
CITY:
Alma

RESPONSIBLE OFFICIAL

NAME: / TITLE
Mark Yardley / Director of Public Works
COMPANY:
City of Alma
MAILING ADDRESS:
811 Fayetteville Ave
CITY, STATE, ZIP:
Alma AR 72921
PHONE & EXT: / FAX:
479-632-2254 /
EMAIL:
mark@cityofalma.org
CONTACTED DURING INSPECTION: **Yes**

INSPECTION INFORMATION

FACILITY TYPE: **1 - Municipal**
INSPECTOR ID#: **84022 S - State**
FACILITY EVALUATION RATING: **3 - Satisfactory**
INSPECTION TYPE: **Compliance Evaluation**
DATE(S): **1/28/2016**
ENTRY TIME: **09:30**
EXIT TIME: **15:30**
PERMIT EFFECTIVE DATE: **5/1/2013**
PERMIT EXPIRATION DATE: **4/30/2018**
FAYETTEVILLE SHALE RELATED: **N**
FAYETTEVILLE SHALE VIOLATIONS: **N**

INSPECTION PARTICIPANTS

NAME/TITLE/PHONE/FAX/EMAIL/ETC.:
Tony Maxwell/Class III/Advanced Industrial WW Operator (Lic# 003525)/(479) 632-2254/almawwtp.ymail.com
District 4 Inspector Alana Sullivan

AREA EVALUATIONS

(S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Applicable/Evaluated)

S	PERMIT	**S**	FLOW MEASUREMENT	**N**	STORMWATER
S	RECORDS/REPORTS	**S**	LABORATORY	**S**	FACILITY SITE REVIEW
M	OPERATION & MAINTENANCE	**S**	EFFLUENT/RECEIVING WATER	**S**	SELF-MONITORING PROGRAM
S	SAMPLING	**S**	SLUDGE HANDLING/DISPOSAL	**N**	PRETREATMENT
******	OTHER:				

SUMMARY OF FINDINGS

The following violations were noted during the inspection:

1.) The permittee has exceeded effluent limits for TSS (7-day Avg.; Oct 2015) and BOD5 (Mon. Avg.; Nov 2015; Mon. Avg. for Loading and 7-day Avg.; Dec 2015). This is a violation of Part I, Sec A of the permit. The permittee has submitted Noncompliance Reports (NCRs) to the Department. No further response is required.

2.) The City started adding an algaecide in March 2014 without prior approval from the Department. This is a violation of Part III, Sec A, 4. of the permit. Subsequently, the City has submitted the required information and has received a conditional approval letter from the Permits Branch. No further response is required.

3.) The lagoon levees of Pond #2 are eroding. This is a violation of Part III, Sec B, 1.A. of the permit. The City has budgeted funds for levee repairs, and this area of the WWTP is scheduled for 2016. No further response is required.

4.) The City is using the 19th Edition of Standard Methods. This edition is outdated and should be replaced with the 22nd Edition (2012). This is a violation of Part III, Sec C, 3. of the permit.

Additional Info:

Per Part II, Condition #8, there is language that allows for the bypass of chlorination/dechlorination. However, the language does not address the actual TRC measurement when chlorination is not used. In order to remain in compliance with Part I, Sec A of the permit, the City is sampling TRC three/week even though they have not chlorinated since the permit renewal and have demonstrated through an upstream FCB study that chlorination

is not necessary. During the next permit renewal, the City may wish to comment regarding only sampling TRC if the plant is chlorinating. Example language can be found by viewing NPDES permit AR0000400.

The plant has two discharge pipes: one is the gravity line used during normal operations, and the other is a force line used when the Arkansas River is flooded. A flow diagram of the plant was provided in the permit renewal application that demonstrates the use of two discharge pipes; however, that information is not included with the permit. The divergence of the two pipes occurs after final treatment and effluent sampling.

GENERAL COMMENTS

On Thursday, Jan 28, 2016 an inspection was conducted with the above-mentioned inspection participants. The inspection consisted of a site assessment and a records review.

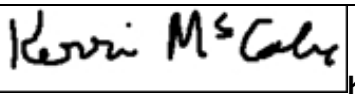
Site assessment:

Treatment consists of commutator/bar screen, influent flow measurement, Pond #1 (three cells; one partially mixed and two completely mixed), Pond #2 (facultative), Pond #3 (facultative), Pond #4 for storage/flow equalization, chlorination/dechlorination (optional), effluent flow measurement, and discharge to Outfall 001 (gravity/force).

Overall, the plant was well-maintained. Only noted some solids at the top of Pond #1 levees from solids removal from 2010 and prior to the installation of the commutator. Solids should be raked up and disposed of properly. Noted some erosion of Pond #2 levees; however, the City has budgeted funds to place rip-rap along pond levees, and this area is scheduled for repairs in 2016. As with most lagoon systems, algae are a problem. The City started adding algaecide in March 2014 and has not exceeded effluent parameters until winter of 2015 (TSS and BOD5).

Records review:

City of Alma maintains some of the most thorough and well-organized records of any facility inspected. Calibration records, in-house bench sheets, Chain of Custody forms, and submitted DMRs contain all the required information. Contract lab has also updated their analysis cover page to reflect utilizing the 22nd Edition of Standard Methods.

INSPECTOR'S SIGNATURE: 	**Kerri McCabe**	DATE: **2/22/2016**
SUPERVISOR'S SIGNATURE: 	**Jason Bolenbaugh**	DATE: **2/24/2016**

SECTION A: PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE:	☑Y ☐N ☐NA ☐NE
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES:	☐Y ☐N ☑NA ☐NE
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT:	☐Y ☑N ☐NA ☐NE
4. ALL DISCHARGES ARE PERMITTED: **Outfall consists of a gravity pipe for normal conditions and a force pipe for when the river is at flood level; permittee needs to address both pipes during the permit renewal in 2018.**	☑Y ☐N ☐NA ☐NE

SECTION B: RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT	☑S ☐M ☐U ☐NA ☐NE
DETAILS: **Permittee measures flow, DO, TRC, and pH; contract labs measure all other parameters.**	
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRS:	☑Y ☐N ☐NA ☐NE
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE:	☑S ☐M ☐U ☐NA ☐NE
a. DATES AND TIME(S) OF SAMPLING:	☑Y ☐N ☐NA ☐NE
b. EXACT LOCATION(S) OF SAMPLING:	☑Y ☐N ☐NA ☐NE
c. NAME OF INDIVIDUAL PERFORMING SAMPLING:	☑Y ☐N ☐NA ☐NE
d. ANALYTICAL METHODS AND TECHNIQUES:	☑Y ☐N ☐NA ☐NE
e. RESULTS OF CALIBRATIONS:	☑Y ☐N ☐NA ☐NE
f. RESULTS OF ANALYSES:	☑Y ☐N ☐NA ☐NE
g. DATES AND TIMES OF ANALYSES:	☑Y ☐N ☐NA ☐NE
h. NAME OF PERSON(S) PERFORMING ANALYSES:	☑Y ☐N ☐NA ☐NE
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE:	☑S ☐M ☐U ☐NA ☐NE
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR:	☑S ☐M ☐U ☐NA ☐NE
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA:	☑Y ☐N ☐NA ☐NE

SECTION C: OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED	☐S ☑M ☐U ☐NA ☐NE
DETAILS:	
1. TREATMENT UNITS PROPERLY OPERATED:	☑S ☐M ☐U ☐NA ☐NE
2. TREATMENT UNITS PROPERLY MAINTAINED: **Some erosion of the lagoon levees; City is working on this annually as funds become available.**	☐S ☑M ☐U ☐NA ☐NE
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED: **EQ basin and onsite generator.**	☑S ☐M ☐U ☐NA ☐NE
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE:	☑S ☐M ☐U ☐NA ☐NE
5. ALL NEEDED TREATMENT UNITS IN SERVICE: **Alternate blowers; plant designed for larger volumes than received (IU is no longer sending influent to plant).**	☑S ☐M ☐U ☐NA ☐NE
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED: **One (1) Class III/Advanced Industrial**	☑S ☐M ☐U ☐NA ☐NE
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED:	☑S ☐M ☐U ☐NA ☐NE
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE:	☑Y ☐N ☐NA ☐NE
9. STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED:	☑Y ☐N ☐NA ☐NE
10. PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED: **EQ basin**	☑Y ☐N ☐NA ☐NE
11. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR: **Permittee is allowed to bypass chlorination/dechlorination per Part II, Condition #8.**	☐Y ☑N ☐NA ☐NE
12. IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED:	☐Y ☐N ☑NA ☐NE
13. HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS:	☐Y ☐N ☑NA ☐NE
14. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT: **Evidence of hydraulic overload at preliminary during the inspection.**	☑Y ☐N ☐NA ☐NE
15. IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT:	☐Y ☑N ☐NA ☐NE

SECTION D: SAMPLING	
PERMITTEE SAMPLING MEETS PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS: **Permittee measures flow, DO, TRC, and pH; contract labs measure all other parameters.**	
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES:	☑Y ☐N ☐NA ☐NE
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT:	☐Y ☐N ☑NA ☐NE
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
6. SAMPLE COLLECTION PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
a. SAMPLES REFRIGERATED DURING COMPOSITING:	☑Y ☐N ☐NA ☐NE
b. PROPER PRESERVATION TECHNIQUES USED:	☑Y ☐N ☐NA ☐NE
c. CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136:	☑Y ☐N ☐NA ☐NE
7. IF MONITORING IS PERFORMED MORE OFTEN THAN REQUIRED ARE RESULTS REPORTED ON THE DMR:	☐Y ☐N ☑NA ☐NE

SECTION E: FLOW MEASUREMENT	
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED: **Y** TYPE OF DEVICE: **3' rectangular weir w/ end contractions**	☑Y ☐N ☐NA ☐NE
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED:	☑Y ☐N ☐NA ☐NE
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED: **Milltronic OCM-III totalizer**	☑Y ☐N ☐NA ☐NE
4. CALIBRATION FREQUENCY ADEQUATE: **July 2015**	☑Y ☐N ☐NA ☐NE
5. RECORDS MAINTAINED OF CALIBRATION PROCEDURES:	☑Y ☐N ☐NA ☐NE
6. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE: **once/month**	☑Y ☐N ☐NA ☐NE
7. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE:	☑Y ☐N ☐NA ☐NE
8. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES:	☑Y ☐N ☐NA ☐NE
9. HEAD MEASURED AT PROPER LOCATION:	☑Y ☐N ☐NA ☐NE

SECTION F: LABORATORY	
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS: **Permittee measures flow, DO, TRC, and pH; contract labs measure all other parameters. City has provided EPA certificate for QC/QA Assurance program.**	
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(B) FOR SLUDGES) :	☑Y ☐N ☐NA ☐NE
2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED:	☐Y ☐N ☑NA ☐NE
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT:	☑Y ☐N ☐NA ☐NE
4. QUALITY CONTROL PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
5. DUPLICATE SAMPLES ARE ANALYZED ≥10% OF THE TIME:	☑Y ☐N ☐NA ☐NE
6. SPIKED SAMPLES ARE ANALYZED ≥10% OF THE TIME:	☑Y ☐N ☐NA ☐NE
7. COMMERCIAL LABORATORY USED:	☑Y ☐N ☐NA ☐NE
a. LAB NAME: **Data Testing, Inc.**	
b. LAB ADDRESS: **3434 Country Club, Fort Smith, AR 72903**	
c. PARAMETERS PERFORMED: **BOD5, TSS, and FCB; TP, NO3+NO2-N, and WET farmed out to American Interplex (8600 Kanis Rd, Little Rock, AR 72204-2322)**	
8. BIOMONITORING PROCEDURES ADEQUATE: **Reduce to semi-annually in May 2014.**	☑Y ☐N ☐NA ☐NE
a. PROPER ORGANISMS USED:	☑Y ☐N ☐NA ☐NE
b. PROPER DILUTION SERIES FOLLOWED:	☑Y ☐N ☐NA ☐NE
c. PROPER TEST METHODS AND DURATION:	☑Y ☐N ☐NA ☐NE
d. RETESTS AND/OR TRE PERFORMED AS REQUIRED:	☐Y ☐N ☑NA ☐NE

SECTION G: EFFLUENT/RECEIVING WATERS OBSERVATIONS

BASED ON VISUAL OBSERVATIONS ONLY ☑S ☐M ☐U ☐NA ☐NE

DETAILS: **Observed after chlorination/dechlorination unit and at receiving stream.**

OUTFALL #:	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOATING SOLIDS	COLOR	OTHER
001	NO	NO	NO	NO	NO	PALE GREEN	--

SECTION H: SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS ☑S ☐M ☐U ☐NA ☐NE

DETAILS: **City is permitted to land apply through State permit 5068-WR-1; have not land applied since 2010.**

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY: ☑S ☐M ☐U ☐NA ☐NE
2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503: **2013 and 2014 Annual Reports submitted.** ☑S ☐M ☐U ☐NA ☐NE
3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: (E.G., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE): **Site previously used as overland flow of treated effluent; agriculture. Steve King field is not permitted by the City of Alma.**

SECTION I: SAMPLING INSPECTION PROCEDURES

SAMPLE RESULTS WITHIN PERMIT REQUIREMENTS ☐S ☐M ☐U ☑NA ☐NE

DETAILS:

1. SAMPLES OBTAINED THIS INSPECTION: ☐Y ☐N ☑NA ☐NE
2. TYPE OF SAMPLE: ☐GRAB:__ ☐COMPOSITE:__ METHOD:__ FREQUENCY:
3. SAMPLES PRESERVED: ☐Y ☐N ☑NA ☐NE
4. FLOW PROPORTIONED SAMPLES OBTAINED: ☐Y ☐N ☑NA ☐NE
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE: ☐Y ☐N ☑NA ☐NE
6. SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE: ☐Y ☐N ☑NA ☐NE
7. SAMPLE SPLIT WITH PERMITTEE: ☐Y ☐N ☑NA ☐NE
8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED: ☐Y ☐N ☑NA ☐NE
9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT: ☐Y ☐N ☑NA ☐NE

SECTION J: STORM WATER POLLUTION PREVENTION PLAN

STORM WATER MANAGEMENT MEETS PERMIT REQUIREMENTS ☐S ☐M ☐U ☑NA ☐NE

DETAILS: **Part II, Condition #6 requires implementing BMPs; covered under ARR000321.**

1. SWPPP UPDATED AS NEEDED:__ DATE OF LAST UPDATE: ☐Y ☐N ☑NA ☐NE
2. SITE MAP INCLUDING ALL DISCHARGES AND SURFACE WATERS: ☐Y ☐N ☑NA ☐NE
3. POLLUTION PREVENTION TEAM IDENTIFIED: ☐Y ☐N ☑NA ☐NE
4. POLLUTION PREVENTION TEAM PROPERLY TRAINED: ☐Y ☐N ☑NA ☐NE
5. LIST OF POTENTIAL POLLUTANT SOURCES: ☐Y ☐N ☑NA ☐NE
6. LIST OF POTENTIAL SOURCES AND PAST SPILLS AND LEAKS: ☐Y ☐N ☑NA ☐NE
7. ALL NON-STORM WATER DISCHARGES ARE AUTHORIZED: ☐Y ☐N ☑NA ☐NE
8. LIST OF STRUCTURAL BMPS: ☐Y ☐N ☑NA ☐NE
9. LIST OF NON-STRUCTURAL BMPS: ☐Y ☐N ☑NA ☐NE
10. BMPS PROPERLY OPERATED AND MAINTAINED: ☐Y ☐N ☑NA ☐NE
11. INSPECTIONS CONDUCTED AS REQUIRED: ☐Y ☐N ☑NA ☐NE

FLOW CALCULATION SHEET

Date: **Jan 28, 2016** Time: **1131**

Head in Inches: _____ Feet: **0.30**

Type & Size of Primary Flow Measurement Device: **3' rectangular weir with end contractions**

Name & Model of Secondary Flow Measurement Device: **Milltronics OCM-III totalizer**

Date of last Calibration of Secondary Flow Device: **July 2, 2015**

Recorded Flow at Date & Time Listed Above: **1.268 MGD** (Facility Flow Meter)

Calculated Flow at Date & Time Listed Above: **1.040 MGD**

(Flow is calculated using flow charts in: ISCO Open Channel Flow Measurement Handbook-7th Edition)

$$\% \text{ Error} = \frac{\text{Recorded Value} - \text{Calculated Value}}{\text{Calculated Value}} \times 100$$

$$\% \text{ Error} = \frac{1.268 - 1.040}{1.040} \times 100$$

$$\% \text{ Error} = \frac{0.228}{1.040} \times 100$$

$$\% \text{ Error} = 0.2192 \times 100$$

% Error = **21.9** %

Comments: **Outside +/- 10% range; did not have an individual at the flowmeter while reading staff gauge; could have fluctuated during time lapse.**

DMR Calculation Check

Reporting Period:	**From**	**2015** (Year)	**04** (Month)	**01** (Day)	**To**	**2015** (Year)	**04** (Month)	**30** (Day)

Parameter Checked: **FCB**

	Loading Mass (lbs/day) Mo. Avg.	**Concentration Monthly (mg/l) Mo. Avg.**	**Concentration Monthly (mg/l) 7-day Avg.**
Reported Value:	**N/A**	**9**	**22**
Calculated Value:	**N/A**	**9**	**22**
Permit Value:	**N/A**	**200**	**400**

If calculated value does not equal reported value, explain:
Values are the same. Did not have lab analysis sheet for April 29, 2015 (F-12 sample); used Tony's data. See Figure 3 for calculations.

DMR Calculation Check

Reporting Period:	**From**	**2015** (Year)	**12** (Month)	**1** (Day)	**To**	**2015** (Year)	**12** (Month)	**31** (Day)

Parameter Checked: BOD5

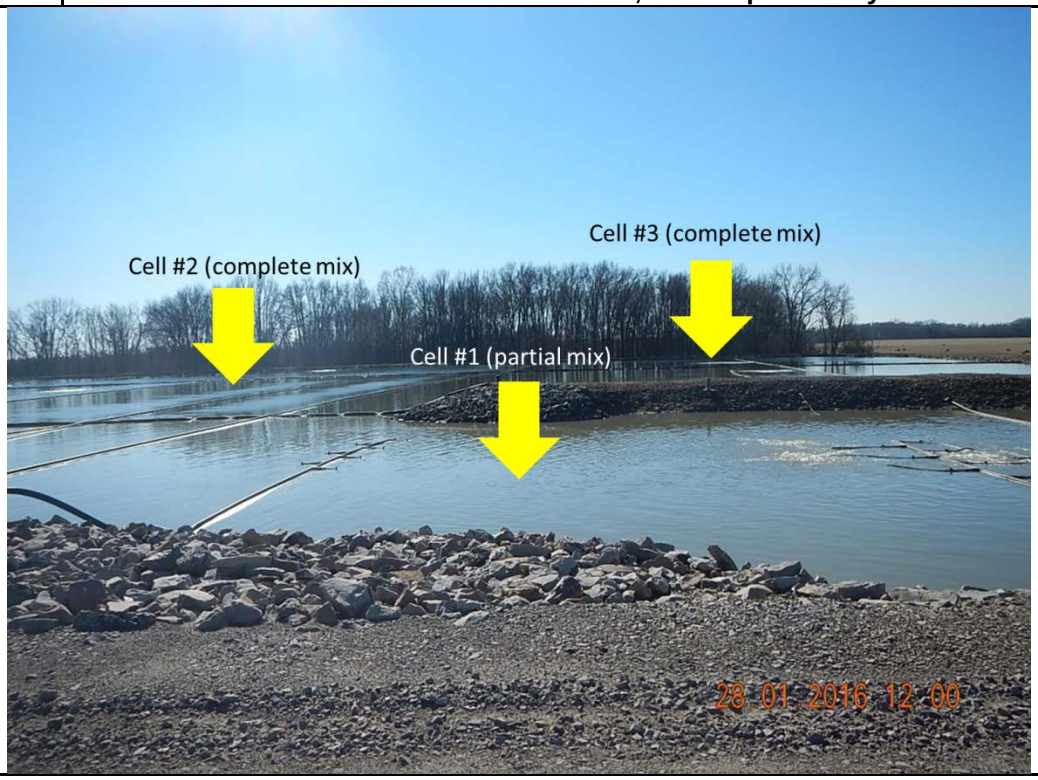
	Loading Mass (lbs/day) Mo. Avg.	Concentration Monthly (mg/l) Mo. Avg.	Concentration Monthly (mg/l) 7-day Avg.
Reported Value:	461.8	23.2	45.7
Calculated Value:	506.7	25.5	46.3
Permit Value:	437.9	30.0	45.0

If calculated value does not equal reported value, explain:
Values not the same. After speaking with Tony, it was determined that the City is using a period flow that is recorded during sample collection. This flow weighted measurement is no longer used for calculating mass. The daily flow is to be used when calculating mass as the daily flow is more representative of the volume and nature of the flow running through the plant. Also, the City is not using the highest of parameter values when a duplicate is ran on the parameter. Duplicates are technically "blind/unknown" and are used for QA/QC purpose, and duplicate values should be similar to the other values recorded. See Figure 4 for calculations.

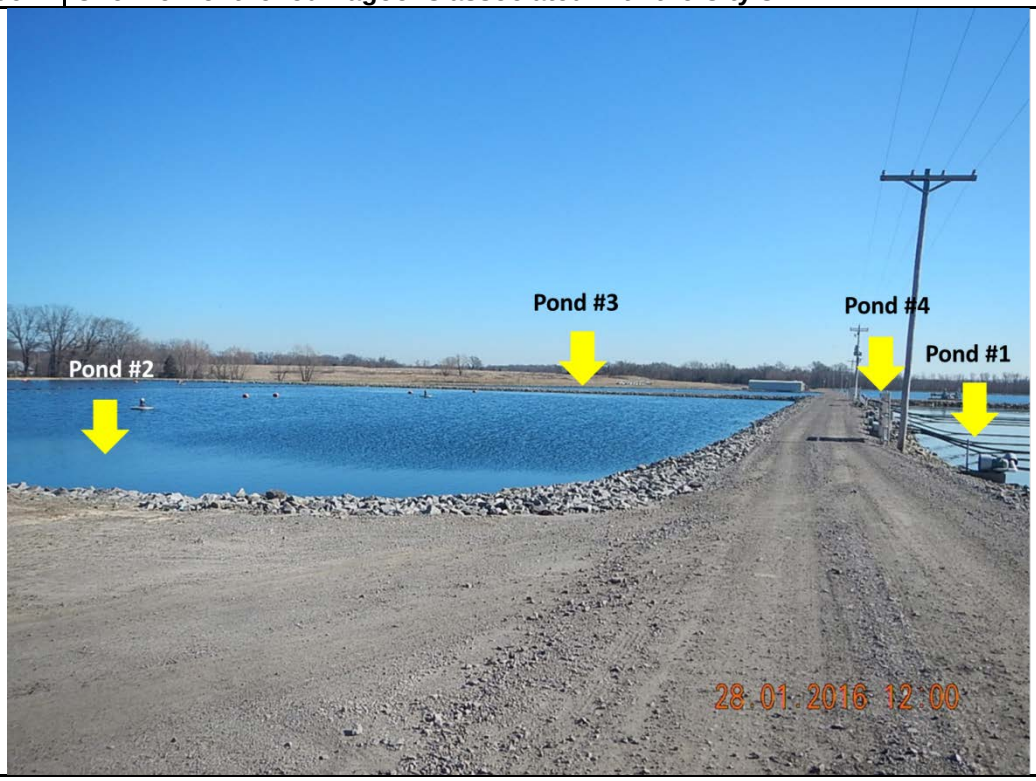
City was in violation of Part 1, Sec A for BOD5 Loading Monthly Average and Concentration 7-day Average in Dec 2015. The City has submitted the required NCR.

Water Division Photographic Evidence Sheet					
Location:	**City of Alma WWTP**				
Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1056**
Witness:	**Alana Sullivan**			Photo #:	**1**
Description:	**Commutator at headworks; bar screen to assist flow.**				

Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1100**
Witness:	**Alana Sullivan**			Photo #:	**2**
Description:	**Overview of Pond #1 with three cells labeled; cells separated by baffles.**				



Water Division Photographic Evidence Sheet					
Location:	**City of Alma WWTP**				
Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1100**
Witness:	**Alana Sullivan**			Photo #:	**3**
Description:	**Overview of the four lagoons associated with the City's WWTP.**				



Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1112**
Witness:	**Alana Sullivan**			Photo #:	**4**
Description:	**Overview of Pond #2.**				

Water Division Photographic Evidence Sheet					
Location:	**City of Alma WWTP**				
Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1115**
Witness:	**Alana Sullivan**			Photo #:	**5**
Description:	**Some erosion of Pond #2 levees.**				

Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1118**
Witness:	**Alana Sullivan**			Photo #:	**6**
Description:	**Overview of Pond #3.**				

Water Division Photographic Evidence Sheet					
Location:	**City of Alma WWTP**				
Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1115**
Witness:	**Alana Sullivan**			Photo #:	**7**
Description:	**Rip-rap added to Pond #3 levees.**				

Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1126**
Witness:	**Alana Sullivan**			Photo #:	**8**
Description:	**Chlorination/dechlorination chamber.**				

Water Division Photographic Evidence Sheet					
Location:	**City of Alma WWTP**				
Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1138**
Witness:	**Alana Sullivan**			Photo #:	**9**
Description:	**Primary and secondary flow measurement devices.**				

Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1131**
Witness:	**Alana Sullivan**			Photo #:	**10**
Description:	**Post-chlorination chamber with gates to direct flow to gravity/force discharge pipes.**				

Water Division Photographic Evidence Sheet					
Location:	**City of Alma WWTP**				
Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1159**
Witness:	**Alana Sullivan**			Photo #:	**11**
Description:	**Gravity line discharging and force line (with flapper) not discharging at Outfall 001.**				

Photographer:	**Kerri McCabe**	Date:	**Jan 28, 2016**	Time:	**1224**
Witness:	**Alana Sullivan**			Photo #:	**12**
Description:	**Intake at Pond #4 (storage/flow equalization) to route wastewater to different areas of the WWTP.**				

Figure 1. Google Earth image dated Oct 5, 2013 showing overview of City of Alma's WWTP and Outfall 001.

Figure 2. Google Earth image dated Oct 5, 2013 showing components of the City of Alma's WWTP.

Figure 3. FCB calculation for City of Alma for April 2015.

FCB				
Apr-15				
Date	Count	Log	Average	Geo Mean
1	4	0.602059991	0.602059991	4
7	4	0.602059991	1.13241486	13.564846
8	156	2.193124598		
9	4	0.602059991		
14	52	1.716003344	1.333101524	21.53285
15	12	1.079181246		
16	16	1.204119983		
21	4	0.602059991	0.602059991	4
22	4	0.602059991		
23	4	0.602059991		
28	36	1.556302501	0.920140828	8.3203353
29	4	0.602059991		
30	4	0.602059991		
Average		0.966554739		
Geo Mean		9.25880076		

Figure 4. BOD5 calculation for City of Alma for Dec 2015.

BOD5				
Dec-15				
Date	Concentration (mg/l)	7-day Average (mg/l)	Daily Flow (MGD)	Mass (lbs/day)
30	50	46.33333333	2.165	902.805
1	47		2.154	844.32492
2	42		2.171	760.45788
7	18	20.33333333	1.968	295.43616
8	20		1.98	330.264
9	23		1.971	378.07722
14	18	17	2.497	374.84964
15	17		2.575	365.0835
16	16		2.536	338.40384
20	26	25.33333333	2.266	491.35944
21	23		2.257	432.93774
22	27		2.067	465.44706
27	22	18.33333333	3.343	613.37364
28	18		4.177	627.05124
29	15		3.047	381.1797
MAX	50			902.805
MIN	15			295.43616
Average	25.46666667			506.736732

From: McCabe, Kerri
To: almapw@centurytel.net; "almawwtp@ymail.com"
Cc: Sullivan, Alana (sullivana@adeq.state.ar.us)
Subject: City of Alma POTW Inspections
Date: Monday, February 01, 2016 10:58:00 AM
Attachments: image001.png

Mark and Tony,

This is a follow-up email to my inspections conducted at the WWTP.

AR0021466

Plant was very clean and records were well-organized (best I've seen of all my inspections). I did note some solids/floatables at the tops of the lagoon levees, and these need to be picked up or raked back into the lagoons. I did not see any solids/floatables on the outer sides of the lagoon levees. There is some erosion occurring of the interior lagoon levees, and it was apparent that the City has made an effort to reduce the erosion and implement control measures. Tony indicated that there is funding set aside for more levee repairs for 2016. As stated in the last inspection by Jeff Tyler, there are two outfall structures (gravity/force). This is common for the area, but be sure to make Permits Branch aware during permit renewal. I could not get the flow check to be within the +/- 10% range (result was 22%; would have needed a reading of 0.34' to be within range of flowmeter). I am requesting a copy of the formula sheet utilized by Tony to compare with the Isco Flow Manual (7th Ed.). The City may need to adjust the staff gauge and update the formula used for accuracy checks. The WWTP does need the most recent version of Standard Methods, which is the 22nd Ed published in 2012. The previous versions are available online for free and have valuable info.

SSO

Noted some removed rags/baby wipes at two lift stations that need to be picked up. City needs to post contact info at the lift stations and needs to document that audio/visual alarms are working. I was very impressed that the City had generators at all lift stations.

ARR000321 (No-Exposure)

The City is violating their No-Exposure permit. There are used aerators and other materials staged outside in front of a drainage that is not routed to the WWTP. There was a diesel leak at the bulk fuel storage area and the tanks are not within containment (unknown if a spill kit was available). The dog pound is using wet methods for cleaning cages. Dog feces and bedding had been washed toward a drainage that does not route to the WWTP. These items need to be addressed to avoid losing the conditional No-Exposure exclusion and having to comply with the entire general permit, which includes sampling stormwater, etc.

5068-WR-1

New permit. I saw no issues with the land that is used for land application.

If you have any questions, please feel free to contact me.

Kerri McCabe
Inspector Supervisor
ADEQ – Water Division
Field Services – Inspection Branch

Office – (501) 682-0642
Work Cell – (501) 352-5641
Fax – (501) 682-0880
5301 Northshore Drive
North Little Rock, AR 72118-5317

ADEQ Logo

811 Fayetteville Ave.
Alma, Arkansas 72921

(479) 632-2254
Fax (479) 632-5136

March 10, 2016

Arkansas Department of Environmental Quality
Water Division Inspection Branch
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: Response to violations noted during the January, 2016 site inspections.

AR0021466

4.) The City of Alma purchased the latest edition of Standard Methods (22nd edition). It is now located at the Wastewater Treatment lab.

ARR000321

A containment vessel has been purchased for the diesel fuel storage tank. The gasoline fuel tank will be removed (unused). The diesel tank should be inside the containment by the 31st of March.

Material from past industrial activities (aerators, piping and totes) have been removed and are no longer exposed to stormwater and subsequent runoff.

The Alma Police department (responsible for animal control) is planning to install a concrete curb around the dog pen and plumb the drain to the sanitary sewer. This should be in place by 30th of April.

AR0021466

1.) The audio/visual alarm in now fully functional. Emergency contact information is posted at the lift station. Solids on ground have been removed and properly disposed of.

2.) Pump #2 has been removed as the lead pump and is no longer leaking. The pump will be repaired before placing back in service. The audio/visual alarm in now fully functional. Emergency contact information is posted at the lift station.

3.) Emergency contact information is posted at the lift station.

4.) The audio/visual alarm in now fully functional. Emergency contact information is posted at the lift station.

5.) The audio/visual alarm in now fully functional. Emergency contact information is posted at the lift station.

Thanks,

Mark Yardley
Public Works Director

ADEQ

ARKANSAS
Department of Environmental Quality

March 17, 2016

Mark Yardley, Director of Public Works
City of Alma
811 Fayetteville Ave
Alma, AR 72921

RE: Response to Inspections (Crawford Co)
AFIN: 17-00059 **NPDES Permit No.: AR0021466**
ARR000321

Dear Mr. Yardley:

I have reviewed the response pertaining to my January 28, 2016 inspections of the City of Alma's POTW, Collection System, and Industrial Stormwater permits. The information provided sufficiently addresses the violations referenced in my inspection reports. At this time, the Department has no further comment concerning these particular inspections. Acceptance of this response by the Department does not preclude any future enforcement action deemed necessary at this site or any other site.

If we need further information concerning this matter, we will contact you. Thank you for your attention to this matter. Should you have any questions, feel free to contact me at (501) 682-0642 or you may e-mail me at mccabe@adeq.state.ar.us.

Sincerely,

Kerri McCabe
Inspector Supervisor
Water Division