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NOV 0 4 2020

MIKE KELLEY OPERATIONS MANAGER
UTILITIES BOARD OF THE CITY OF ANDALUSIA
POST OFFICE BOX 790
ANDALUSIA AL 36420

RE: Draft Permit
NPDES Permit No. AL0055417
Andalusia Riverside WWTP
Covington County, Alabama

Dear Mr. Kelley:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Please be aware that Part I.C.1.c of your permit requires participation in the Department's web-based Electronic Environmental (E2) Reporting System Program for submittal of DMRs upon issuance of this permit unless valid justification as to why you cannot participate is submitted in writing. Please also be aware that Part I.C.2.e of your permit requires participation in the Department's web-based electronic environmental (E2) reporting system for submittal of **SSOs** unless valid justification as to why you cannot participate is submitted in writing. SSO hotline notifications and hard copy Form 415 SSO reports may be used only with the written approval from the Department. The E2 Program allows ADEM to electronically validate, acknowledge receipt, and upload data to the state's central wastewater database. This improves the accuracy of reported compliance data and reduces costs to both the regulated community and ADEM. The Permittee Participation Package may be downloaded online at **https://e2.adem.alabama.gov/npdes** or you may obtain a hard copy by submitting a written request or by emailing e2admin@adem.alabama.gov.

Please also be aware that Part IV. of your permit requires that you develop, implement, and maintain a Sanitary Sewer Overflow Response Plan.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

Should you have any questions, please contact the undersigned by email at draper.rushing@adem.alabama.gov or by phone at (334) 274-4151.

Sincerely,

Draper Suttles

Draper Suttles
Municipal Section
Water Division

drs/mfc
Enclosure

cc: Environmental Protection Agency Email
Ms. Elaine Snyder/U.S. Fish and Wildlife Service
Ms. Elizabeth Brown/Alabama Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE:	UTILITIES BOARD OF THE CITY OF ANDALUSIA POST OFFICE BOX 790 ANDALUSIA, ALABAMA 36420	
FACILITY LOCATION:	ANDALUSIA RIVERSIDE WWTP 21938 RABREN ROAD ANDALUSIA, ALABAMA COVINGTON COUNTY	(2.84) MGD
PERMIT NUMBER:	AL0055417	
RECEIVING WATERS:	CONECUH RIVER, UNNAMED TRIBUTARY TO CONECUH RIVER	

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

MUNICIPAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

TABLE OF CONTENTS

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. Outfall 0011 Discharge Limits - Effluent Monitoring

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Oxygen, Dissolved (DO) 00300 1 0 0	*****	*****	*****	*****	5.0 mg/l	*****	*****	E	GRAB	C	*****
pH 00400 1 0 0	*****	*****	*****	*****	6.0 S.U.	8.5 S.U.	*****	E	GRAB	C	*****
Solids, Total Suspended 00530 1 0 0	710 lbs/day	1065 lbs/day	30.0 mg/l	45.0 mg/l	*****	*****	*****	E	COMP24	C	*****
Solids, Total Suspended 00530 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
Nitrogen, Ammonia Total (As N) 00610 1 0 0	47.0 lbs/day	71.0 lbs/day	2.0 mg/l	3.0 mg/l	*****	*****	*****	E	COMP24	C	*****
Nitrogen, Kjeldahl Total (As N) 00625 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	*****
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	*****
Phosphorus, Total (As P) 00665 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	*****
Flow, In Conduit or Thru Treatment Plant 50050 1 0 0	REPORT MGD	*****	*****	*****	*****	REPORT MGD	*****	E	CONTIN	A	*****
Chlorine, Total Residual See note (5) 50060 1 0 0	*****	*****	0.098 mg/l	*****	*****	0.169 mg/l	*****	E	GRAB	C	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
US – Upstream
DS – Downstream
MW – Monitoring Well
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" or "NODI=9" (if hard copy) on the monthly DMR.

2. Outfall 0011 Discharge Limits - Effluent Monitoring (continued)

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
E. Coli 51040 1 0 0	*****	*****	126 col/100mL	*****	*****	298 col/100mL	*****	E	GRAB	C	ECS
E. Coli 51040 1 0 0	*****	*****	548 col/100mL	*****	*****	2507 col/100mL	*****	E	GRAB	C	ECW
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	331 lbs/day	497 lbs/day	14.0 mg/l	21.0 mg/l	*****	*****	*****	E	COMP24	C	*****
BOD, Carbonaceous 05 Day, 20C 80082 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
BOD, Carb-5 Day, 20 Deg C, Percent Remvl 80091 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****
Solids, Suspended Percent Removal 81011 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
US – Upstream
DS – Downstream
MW – Monitoring Well
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing; see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" or "NODI=9" (if hard copy) on the monthly DMR.

3. Outfall 001Q Discharge Limits - Quarterly Effluent Monitoring

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 001Q, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Zinc Total Recoverable 01094 1 0 0	*****	*****	101 ug/l	*****	*****	101 ug/l	*****	E	GRAB	H	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
US – Upstream
DS – Downstream
MW – Monitoring Well
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" or "NODI=9" (if hard copy) on the monthly DMR.

4. Outfall 001T Discharge Limits - Toxicity Monitoring

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 001T, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Toxicity, Ceriodaphnia Chronic 61426 1 0 0	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q	*****
Toxicity, Pimephales Chronic 61428 1 0 0	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
US – Upstream
DS – Downstream
MW – Monitoring Well
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "*9" or "NODI=9" (if hard copy) on the monthly DMR.

5. Outfalls 002S, 003S, 004S, 005S, and 006S Discharge Limits - Storm Water (5)

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfalls 002S, 003S, 004S, 005S, and 006S which are described more fully in the Permittee's application as Outfalls SW 5, SW 1, SW 2, SW 3, and SW 4, respectively. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) (7) Sample Type	(3) Measurement Frequency	(4) Seasonal
pH 00400 SW 0 0	*****	*****	*****	*****	REPORT S.U.	REPORT S.U.	*****	SW	GRAB	J	*****
Solids, Total Suspended 00530 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Oil & Grease 00556 SW 0 0	*****	*****	*****	*****	*****	15.0 mg/l	*****	SW	GRAB	J	*****
Nitrogen, Ammonia Total (As N) 00610 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Nitrogen, Kjeldahl Total (As N) 00625 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Phosphorus, Total (As P) 00665 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Flow, In Conduit or Thru Treatment Plant (6) 50050 SW 0 0	*****	*****	*****	*****	*****	REPORT MGD	*****	SW	CALCTD	J	*****
E. Coli 51040 SW 0 0	*****	*****	*****	*****	*****	REPORT col/100mL	*****	SW	GRAB	J	*****
BOD, Carbonaceous 05 Day, 20C 80082 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)
** Monitoring Requirements

(1) Sample Location
I – Influent
E – Effluent
X – End Chlorine Contact Chamber
K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.
RS - Receiving Stream
US – Upstream
DS – Downstream
MW – Monitoring Well
SW – Storm Water

(2) Sample Type:
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB – Grab
CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:
S = Summer (May – November)
W = Winter (December - April)
ECS = E. coli Summer (May – October)
ECW = E. coli Winter (November – April)

(5) Storm water samples collected from Outfall 002S shall be representative of Outfalls 002S, 003S, 004S, 005S, and 006S.

(6) See Part IV.F.3.

(7) For all storm water parameters, samples shall be first flushed grab samples (FFGS) collected during the first 30 minutes of discharge.

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

   Sample collection and measurement actions shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit. The effluent sampling point shall be at the nearest accessible location just prior to discharge and after final treatment, unless otherwise specified in the permit.

2. Measurement Frequency

   Measurement frequency requirements found in Provision I.A. shall mean:

   a. Seven days per week shall mean daily.

   b. Five days per week shall mean any five days of discharge during a calendar weekly period of Sunday through Saturday.

   c. Three days per week shall mean any three days of discharge during a calendar week.

   d. Two days per week shall mean any two days of discharge during a calendar week.

   e. One day per week shall mean any day of discharge during a calendar week.

   f. Two days per month shall mean any two days of discharge during the month that are no less than seven days apart. However, if discharges occur only during one seven-day period in a month, then two days per month shall mean any two days of discharge during that seven day period.

   g. One day per month shall mean any day of discharge during the calendar month.

   h. Quarterly shall mean any day of discharge during each calendar quarter.

   i. The Permittee may increase the frequency of sampling, listed in Provisions I.B.2.a through I.B.2.h; however, all sampling results are to be reported to the Department.

3. Test Procedures

   For the purpose of reporting and compliance, Permittees shall use one of the following procedures:

   a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this permit the Permittee shall use the newly approved method.

   b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

      Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the Permittee during permit issuance, reissuance, modification, or during compliance schedule.

      In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

   c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

      The Minimum Level utilized for procedures a and b above shall be reported on the Permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

4. Recording of Results

   For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record the following information:

   a. The facility name and location, point source number, date, time and exact place of sampling;

b. The name(s) of person(s) who obtained the samples or measurements;

c. The dates and times the analyses were performed;

d. The name(s) of the person(s) who performed the analyses;

e. The analytical techniques or methods used, including source of method and method number; and

f. The results of all required analyses.

5. Records Retention and Production

a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the Permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.

b. All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

6. Reduction, Suspension or Termination of Monitoring and/or Reporting

a. The Director may, with respect to any point source identified in Provision I.A. of this permit, authorize the Permittee to reduce, suspend or terminate the monitoring and/or reporting required by this permit upon the submission of a written request for such reduction, suspension or termination by the Permittee, supported by sufficient data which demonstrates to the satisfaction of the Director that the discharge from such point source will continuously meet the discharge limitations specified in Provision I.A. of this permit.

b. It remains the responsibility of the Permittee to comply with the monitoring and reporting requirements of this permit until written authorization to reduce, suspend or terminate such monitoring and/or reporting is received by the Permittee from the Director.

7. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. At a minimum, flow measurement devices shall be calibrated at least once every 12 months.

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

a. The Permittee shall conduct the required monitoring in accordance with the following schedule:

(1) **MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY** shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

(2) **QUARTERLY MONITORING** shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The Permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring should be reported on the last DMR due for the quarter (i.e., March, June, September and December DMRs).

(3) **SEMIANNUAL MONITORING** shall be conducted at least once during the period of January through June and at least once during the period of July through December. The Permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., June and December DMRs).

(4) **ANNUAL MONITORING** shall be conducted at least once during the period of January through December. The Permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter.

Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be reported on the December DMR.

b. The Permittee shall submit discharge monitoring reports (DMRs) on the forms approved by the Department and in accordance with the following schedule:

(1) **REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING** shall be submitted on a monthly basis. The first report is due on the 28th day of the month following the month the permit becomes effective. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(2) **REPORTS OF QUARTERLY TESTING** shall be submitted on a quarterly basis. The first report is due on the 28th day of the month following the first complete calendar quarter the permit becomes effective. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(3) **REPORTS OF SEMIANNUAL TESTING** shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

(4) **REPORTS OF ANNUAL TESTING** shall be submitted on an annual basis. Unless specified elsewhere in the permit, the first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.

c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b. by utilizing the Department's web-based Electronic Environmental (E2) Reporting System.

(1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's E2 Reporting System (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b., unless otherwise directed by the Department.

If the E2 Reporting System is down on the 28th day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the E2 Reporting System resuming operation, the permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date), if applicable.

(2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

A permittee with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.

(3) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.

(4) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.

(5) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.

d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules and Regulations, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible

official" of the permittee as defined in ADEM Administrative Code Rule 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 and shall bear the following certification:

> **"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."**

e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

Alabama Department of Environmental Management
Environmental Data Section, Permits & Services Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

Alabama Department of Environmental Management
Environmental Data Section, Permits & Services Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

Alabama Department of Environmental Management
Municipal Section, Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Municipal Section, Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400

g. If this permit is a reissuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b. above.

2. Noncompliance Notifications and Reports

a. The Permittee shall notify the Department if, for any reason, the Permittee's discharge:

(1) Does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I.A. of this permit which is denoted by an "(X)";

(2) Potentially threatens human health or welfare;

(3) Threatens fish or aquatic life;

(4) Causes an in-stream water quality criterion to be exceeded;

(5) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);

(6) Contains a quantity of a hazardous substance that may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);

(7) Exceeds any discharge limitation for an effluent parameter listed in Part I.A. as a result of an unanticipated bypass or upset; or

(8) Is an unpermitted direct or indirect discharge of a pollutant to a water of the state. (Note that unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision.)

The Permittee shall orally or electronically provide notification of any of the above occurrences, describing the circumstances and potential effects, to the Director or Designee within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic notification, the Permittee shall submit a report to the Director or Designee, as provided in Provision I.C.2.c. or I.C.2.e., no later than five days after becoming aware of the occurrence of such discharge or occurrence.

b. If, for any reason, the Permittee's discharge does not comply with any limitation of this permit, then the Permittee shall submit a written report to the Director or Designee, as provided in Provision I.C.2.c below. This report must be submitted with the next Discharge Monitoring Report required to be submitted by Provision I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.

c. Except for notifications and reports of notifiable SSOs which shall be submitted in accordance with the applicable Provisions of this permit, the Permittee shall submit the reports required under Provisions I.C.2.a. and b. to the Director or Designee on ADEM Form 421, available on the Department's website (http://www.adem.state.al.us/DeptForms/Form421.pdf). The completed Form must document the following information:

(1) A description of the discharge and cause of noncompliance;

(2) The period of noncompliance, including exact dates, times, and duration of the noncompliance. If the noncompliance is not corrected by the due date of the written report, then the Permittee shall provide an estimated date by which the noncompliance will be corrected; and

(3) A description of the steps taken by the Permittee and the steps planned to be taken by the Permittee to reduce or eliminate the noncompliant discharge and to prevent its recurrence.

d. Immediate notification

The Permittee shall provide notification to the Director, the public, the county health department, and any other affected entity such as public water systems, as soon as possible upon becoming aware of any notifiable sanitary sewer overflow. Notification to the Director shall be completed utilizing the Department's web-based electronic environmental SSO reporting system in accordance with Provision I.C.2.e.

e. The Department is utilizing a web-based electronic environmental (E2) reporting system for notification and submittal of SSO reports. **If the Permittee is not already participating in the E2 Reporting System for SSO reports, the Permittee must apply for participation in the system within 30 days of coverage under this permit unless the Permittee submits in writing valid justification as to why it cannot participate and the Department approves in writing utilization of verbal notifications and hard copy SSO report submittals.** Once the Permittee is enrolled in the E2 Reporting System for SSO reports, the Permittee must utilize the system for notification and submittal of all SSO reports unless otherwise allowed by this permit. The Permittee shall include in the SSO reports the information requested by ADEM Form 415. In addition, the Permittee shall include the latititude and longitude of the SSO in the report except when the SSO is a result of an extreme weather event (e.g., hurricane). To participate in the E2 Reporting System for SSO reports, the Permittee Participation Package may be downloaded online at **https://e2.adem.alabama.gov/npdes**. If the E2 Reporting System is down (i.e., electronic submittal of SSO data cannot be completed due to technical problems originating with the Department's system), the Permittee is not relieved of its obligation to notify the Department or submit SSO reports to the Department by the required submittal date, and the Permittee shall submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include verbal reports, reports submitted via the SSO hotline, or reports submitted via fax, e-mail, mail, or hand-delivery such that they are received by the required reporting date. Within five calendar days of the E2 Reporting System resuming operation, the Permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. For any alternate notification, records of the date, time, notification method, and person submitting the notification should be maintained by the Permittee. If a Permittee is allowed to submit SSO reports via an alternate method, the SSO report must be in a format approved by the Department and must be legible.

f. The Permittee shall maintain a record of all known wastewater discharge points that are not authorized as permitted outfalls, including but not limited to SSOs. The Permittee shall include this record in its Municipal Water Pollution Prevention (MWPP) Annual Reports, which shall be submitted to the Department each year by May 31st for the prior calendar year period beginning January 1st and ending December 31st. The MWPP Annual Reports shall contain a list of all known wastewater discharge points that are not authorized as permitted outfalls and any discharges that occur prior to the headworks of the wastewater treatment plant covered by this permit. The Permittee shall also provide in the MWPP Annual Reports a list of any discharges reported during the applicable time period in accordance with Provision I.C.2.a. The Permittee shall include in its MWPP Annual Reports the following information for each known unpermitted discharge that occurred:

(1) The cause of the discharge;

(2) Date, duration and volume of discharge (estimate if unknown);

(3) Description of the source (e.g., manhole, lift station);

(4) Location of the discharge, by latitude and longitude (or other appropriate method as approved by the Department);

(5) The ultimate destination of the flow (e.g., surface waterbody, municipal separate storm sewer to surface waterbody). Location should be shown on a USGS quad sheet or copy thereof; and

(6) Corrective actions taken and/or planned to eliminate future discharges.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

   The Permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

   The Permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

   a. The Permittee shall inform the Director of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the Permittee shall furnish the Director with an update of any information provided in the permit application.

   b. If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

   The Permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

E. SCHEDULE OF COMPLIANCE

1. Compliance with discharge limits

   The Permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

   COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. Schedule

   No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

   The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices (BMP)

   a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.

   b. The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.

   c. The Permittee shall prepare, submit for approval and implement a BMP Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Certified Operator

   The Permittee shall not operate any wastewater treatment plant unless the competency of the operator to operate such plant has been duly certified by the Director pursuant to AWPCA, and meets the requirements specified in ADEM Administrative Code, Rule 335-10-1.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

   The Permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

   The Permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

   (1) Enter upon the Permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;

   (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permits;

   (3) Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and

   (4) Sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

C. BYPASS AND UPSET

1. Bypass

   a. Any bypass is prohibited except as provided in b. and c. below:

   b. A bypass is not prohibited if:

      (1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;

      (2) It enters the same receiving stream as the permitted outfall; and

      (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.

   c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:

      (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and

(3) The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the Permittee is granted such authorization, and the Permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.

d. The Permittee has the burden of establishing that each of the conditions of Provision II. C. 1. b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.

2. Upset

a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:

(1) No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and

(2) No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that:

(i) An upset occurred;

(ii) The Permittee can identify the specific cause(s) of the upset;

(iii) The Permittee's facility was being properly operated at the time of the upset; and

(iv) The Permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.

b. The Permittee has the burden of establishing that each of the conditions of Provision II C. 2. a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I. A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. Duty to Comply

a. The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.

b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a Permittee in an enforcement action.

c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.

d. The Permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.

e. Nothing in this permit shall be construed to preclude or negate the Permittee's responsibility to apply for, obtain, or comply with other Federal, State, or Local Government permits, certifications,or licenses or to preclude from obtaining other federal, state, or local approvals, including those applicable to other ADEM programs and regulations.

2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the Permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the

primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the Permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance With Statutes and Rules

   a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Boulevard Montgomery, Alabama 36110-2059.

   b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

   a. If the Permittee intends to continue to discharge beyond the expiration date of this permit, the Permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the Permittee does not intend to continue discharge beyond the expiration of this permit, the Permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.

   b. Failure of the Permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

   Prior to any facility expansion, process modification or any significant change in the method of operation of the Permittee's treatment works, the Permittee shall provide the Director with information concerning the planned expansion, modification or change. The Permittee shall apply for a permit modification at least 180 days prior to any facility expansion, process modification, any significant change in the method of operation of the Permittee's treatment works or other actions that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant or could result in an additional discharge point. This condition applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

3. Transfer of Permit

   This permit may not be transferred or the name of the Permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new Permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the Permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the Permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

   a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

      (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;

      (2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or

      (3) If modification or revocation and reissuance is requested by the Permittee and cause exists, the Director may grant the request.

   b. This permit may be modified during its term for cause, including but not limited to, the following:

      (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;

(2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;

(3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;

(4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;

(5) Errors in calculation of discharge limitations or typographical or clerical errors were made;

(6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;

(7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;

(8) To agree with a granted variance under 30l(c), 30l(g), 30l(h), 30l(k), or 3l6(a) of the FWPCA or for fundamentally different factors;

(9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;

(10) When required by the reopener conditions in this permit;

(11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);

(12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;

(13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or

(14) When requested by the Permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules.

5. Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

a. Violation of any term or condition of this permit;

b. The Permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the Permittee's misrepresentation of any relevant facts at any time;

c. Materially false or inaccurate statements or information in the permit application or the permit;

d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

e. The Permittee's discharge threatens human life or welfare or the maintenance of water quality standards;

f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;

g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the Permittee; or

h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Suspension

This permit may be suspended during its term for noncompliance until the Permittee has taken action(s) necessary to achieve compliance.

7. Stay

The filing of a request by the Permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition, and the Permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the Permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. NOTICE TO DIRECTOR OF INDUSTRIAL USERS

1. The Permittee shall not allow the introduction of wastewater, other than domestic wastewater, from a new direct discharger prior to approval and permitting, if applicable, of the discharge by the Department.
2. The Permittee shall not allow an existing indirect discharger to increase the quantity or change the character of its wastewater, other than domestic wastewater, prior to approval and permitting, if applicable, of the increased discharge by the Department.
3. The Permittee shall report to the Department any adverse impact caused or believed to be caused by an indirect discharger on the treatment process, quality of discharged water, or quality of sludge. Such report shall be submitted within seven days of the Permittee becoming aware of the adverse impacts.

H. PROHIBITIONS

The Permittee shall not allow, and shall take effective enforcement action to prevent and terminate, the introduction of any of the following into its treatment works by industrial users:

1. Pollutants which create a fire or explosion hazard in the treatment works;
2. Pollutants which will cause corrosive structural damage to the treatment works, or dischargers with a pH lower than 5.0 s.u., unless the works are specifically designed to accommodate such discharges;
3. Solid or viscous pollutants in amounts which will cause obstruction of flow in sewers, or other interference with the treatment works;
4. Pollutants, including oxygen demanding pollutants, released in a discharge of such volume or strength as to cause interference in the treatment works;
5. Heat in amounts which will inhibit biological activity in the treatment plant resulting in interference or in such quantities that the temperature of the treatment plant influent exceeds 40°C (104° F) unless the treatment plant is designed to accommodate such heat; and
6. Pollutants in amounts which exceed any applicable pretreatment standard under Section 307 of FWPCA or any approved revisions thereof.

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

   Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

   Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

   a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA, and as such, any terms, conditions, or limitations of the permit are enforceable under state and federal law.

   b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes:

      (1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;

      (2) An action for damages;

      (3) An action for injunctive relief; or

      (4) An action for penalties.

   c. If the Permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the Permittee has made a timely and complete application for reissuance of the permit:

      (1) Initiate enforcement action based upon the permit which has been continued;

      (2) Issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

      (3) Reissue the new permit with appropriate conditions; or

      (4) Take other actions authorized by these rules and AWPCA.

4. Relief from Liability

   Except as provided in Provision II. C. 1. (Bypass) and Provision II. C. 2. (Upset), nothing in this permit shall be construed to relieve the Permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities or penalties to which the Permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.

2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.

3. Construction has begun when the owner or operator has:

   a. Begun, or caused to begin as part of a continuous on-site construction program:

      (1) Any placement, assembly, or installation of facilities or equipment; or

      (2) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which are necessary for the placement, assembly, or installation of new source facilities or equipment; or

   b. Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

4. Final plans and specifications for a waste treatment facility at a new source or new discharger, or a modification to an existing waste treatment facility must be submitted to and examined by the Department prior to initiating construction of such treatment facility by the Permittee.

5. Upon completion of construction of waste treatment facilities and prior to operation of such facilities, the Permittee shall submit to the Department a certification from a registered professional engineer, licensed to practice in the State of Alabama, that the treatment facilities have been built according to plans and specifications submitted to and examined by the Department.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the Permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.

2. Compliance with permit terms and conditions notwithstanding, if the Permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the Permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.

3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification, and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. Average monthly discharge limitation – means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

2. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

3. Arithmetic Mean – means the summation of the individual values of any set of values divided by the number of individual values.
4. AWPCA – means the Alabama Water Pollution Control Act.
5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.
6. Bypass – means the intentional diversion of waste streams from any portion of a treatment facility.
7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
8. Daily discharge – means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
9. Daily maximum – means the highest value of any individual sample result obtained during a day.
10. Daily minimum – means the lowest value of any individual sample result obtained during a day.
11. Day – means any consecutive 24-hour period.
12. Department – means the Alabama Department of Environmental Management.
13. Director – means the Director of the Department.
14. Discharge – means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(9).
15. Discharge Monitoring Report (DMR) – means the form approved by the Director to accomplish reporting requirements of an NPDES permit.
16. DO – means dissolved oxygen.
17. 8HC – means 8-hour composite sample, including any of the following:
    a. The mixing of at least 8 equal volume samples collected at constant time intervals of not more than 1 hour over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
    b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
18. EPA – means the United States Environmental Protection Agency.
19. FC – means the pollutant parameter fecal coliform.
20. Flow – means the total volume of discharge in a 24-hour period.
21. FWPCA – means the Federal Water Pollution Control Act.
22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
26. MGD – means million gallons per day.
27. Monthly Average – means the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.
28. New Discharger – means a person, owning or operating any building, structure, facility or installation:
    a. From which there is or may be a discharge of pollutants;
    b. From which the discharge of pollutants did not commence prior to August 13, 1979, and which is not a new source; and

c. Which has never received a final effective NPDES permit for dischargers at that site.

29. NH3-N – means the pollutant parameter ammonia, measured as nitrogen.

30. Notifiable sanitary sewer overflow – means an overflow, spill, release or diversion of wastewater from a sanitary sewer system that:

    a. Reaches a surface water of the State; or

    b. May imminently and substantially endanger human health based on potential for public exposure including but not limited to close proximity to public or private water supply wells or in areas where human contact would be likely to occur.

31. Permit application – means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.

32. Point source – means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).

33. Pollutant – includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.

34. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".

35. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.

36. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".

37. Severe property damage – means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

38. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.

39. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.

40. TON – means the pollutant parameter Total Organic Nitrogen.

41. TRC – means Total Residual Chlorine.

42. TSS – means the pollutant parameter Total Suspended Solids.

43. 24HC – means 24-hour composite sample, including any of the following:

    a. The mixing of at least 8 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;

    b. A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or

    c. A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

44. Upset – means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

45. Waters – means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground, or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.

46. Week – means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

47. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

PART IV SPECIFIC REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. SLUDGE MANAGEMENT PRACTICES

1. Applicability

   a. Provisions of Provision IV.A. apply to a sewage sludge generated or treated in treatment works that is applied to agricultural and non-agricultural land, or that is otherwise distributed, marketed, incinerated, or disposed in landfills or surface disposal sites.

   b. Provisions of Provision IV.A. do not apply to:

      (1) Sewage sludge generated or treated in a privately owned treatment works operated in conjunction with industrial manufacturing and processing facilities and which receive no domestic wastewater.

      (2) Sewage sludge that is stored in surface impoundments located at the treatment works prior to ultimate disposal.

2. Submitting Information

   a. If applicable, the Permittee must submit annually with its Municipal Water Pollution Prevention (MWPP) report the following:

      (1) Type of sludge stabilization/digestion method;

      (2) Daily or annual sludge production (dry weight basis);

      (3) Ultimate sludge disposal practice(s).

   b. The Permittee shall provide sludge inventory data to the Director as requested. These data may include, but are not limited to, sludge quantity and quality reported in Provision IV.A.2.a as well as other specific analyses required to comply with State and Federal laws regarding solid and hazardous waste disposal.

   c. The Permittee shall give prior notice to the Director of at least 30 days of any change planned in the Permittee's sludge disposal practices.

3. Reopener or Modification

   a. Upon review of information provided by the Permittee as required by Provision IV.A.2. or, based on the results of an on-site inspection, the permit shall be subject to modification to incorporate appropriate requirements.

   b. If an applicable "acceptable management practice" or if a numerical limitation for a pollutant in sewage sludge promulgated under Section 405 of FWPCA is more stringent than the sludge pollutant limit or acceptable management practice in this permit. This permit shall be modified or revoked or reissued to conform to requirements promulgated under Section 405. The Permittee shall comply with the limitations no later than the compliance deadline specified in applicable regulations as required by Section 405 of FWPCA.

B. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS FOR CHRONIC TOXICITY

1. Chronic Toxicity Test

   a. The permittee shall perform short-term chronic toxicity tests on the wastewater at Outfall 0011.

   b. The samples shall be diluted using appropriate control water to the Instream Waste Concentration (IWC) which is **12%** effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year low flow period.

   c. Any test result that shows a statistically significant reduction in survival, growth, or reproduction between the control and test samples at the 95% confidence level indicates chronic toxicity and shall constitute noncompliance with this permit.

2. General Test Requirements

   a. A minimum of three (3) 24-hour composite samples shall be obtained for use in the above biomonitoring tests. Samples shall be collected every other day so that the laboratory receives water samples on the first, third, and fifth day of the seven-day test period. The holding time for each composite sample shall not exceed 36 hours. The control water shall be a water prepared in the laboratory in accordance with the EPA procedure described in EPA 821-R-02-013 (most current edition) or another control water selected by the Permittee and approved by the Department.

   b. Test results shall be deemed unacceptable and the Permittee shall rerun the tests as soon as practical within the monitoring period for the following:

      (1) For testing with P. promelas:, effluent toxicity tests with control survival of less than 80% or if dry weight per surviving control organism is less than 0.25 mg;

(2) For testing with C. dubia:, if the number of young per surviving control organism is less than 15 or if less than 60% of surviving control females produce three broods; or

(3) If the other requirements of the EPA Test Procedure are not met.

c. In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are to be reported to the Department along with an explanation of the tests performed and the test results.

d. Toxicity tests shall be conducted for the duration of this permit in the month of **August**. Should results from the Annual Toxicity test indicate that Outfall 001-1 exhibits chronic toxicity, then the Permittee must conduct the follow-up testing described in Part IV.B.4.a. In addition, the Permittee may then also be required to conduct toxicity testing in the months of FEBRUARY, MAY, AUGUST, and NOVEMBER.

3. Reporting Requirements

a. The Permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).

b. Biomonitoring test results obtained during each monitoring period shall be summarized and reported using the appropriate Discharge Monitoring Report (DMR) form approved by the Department. In accordance with Section 2 of this part, an effluent toxicity report containing the information in Sections 2 and 6 shall be included with the DMR. Two copies of the test results must be submitted to the Department no later than 28 days after the month that tests were performed.

4. Additional Testing Requirements

a. If chronic toxicity is indicated (i.e., noncompliance with permit limit), then the Permittee must perform two additional valid chronic toxicity tests in accordance with these procedures to determine the extent and duration of the toxic condition. The toxicity tests shall run consecutively beginning on the first calendar week following the date that the Permittee became aware of the permit noncompliance. The results of these follow-up tests shall be submitted to the Department no later than 28 days following the month the tests were performed.

b. After evaluation of the results of the follow-up tests, the Department will determine if additional action is appropriate and may require additional testing and/or toxicity reduction measures. The permittee may be required to perform a Toxicity Identification Evaluation (TIE) and/or a Toxicity Reduction Evaluation (TRE). The TIE/TRE shall be performed in accordance with the most recent protocols and guidance outlined by EPA (e.g., EPA/600/2-88/062, EPA/600/R-92/080, EPA/600/R-91-003, EPA/600/R-92/081, EPA/833/B-99/022, and/or EPA/600/6-91/005F)

5. Test Methods

The tests shall be performed in accordance with the latest edition of the "EPA Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms." The Larval Survival and Growth Test, Method 1000.0, shall be used for the fathead minnow (Pimephales promelas) test and the Survival and Reproduction Test, Method 1002.0, shall be used for the cladoceran (Ceriodaphnia dubia) test.

6. Effluent Toxicity Testing Reports

The following information shall be submitted with each DMR unless otherwise directed by the Department. The Department may at any times suspend or reinstate this requirement or may decrease or increase the frequency of submittals.

a. Introduction

(1) Facility name, location and county
(2) Permit number
(3) Toxicity testing requirements of permit
(4) Name of receiving water body
(5) Contract laboratory information (if tests are performed under contract)
  (a) Name of firm
  (b) Telephone number
  (c) Address
(6) Objective of test

b. Plant Operations

(1) Discharge Operating schedule (if other than continuous)
(2) Volume of discharge during sample collection to include Mean daily discharge on sample collection dates (MGD, CFS, GPM)
(3) Design flow of treatment facility at time of sampling

c. Source of Effluent and Dilution Water

(1) Effluent samples

(a) Sampling point
(b) Sample collection dates and times (to include composite sample start and finish times)
(c) Sample collection method
(d) Physical and chemical data of undiluted effluent samples (water temperature, pH, alkalinity, hardness, specific conductance, total residual chlorine (if applicable), etc.)
(e) Lapsed time from sample collection to delivery
(f) Lapsed time from sample collection to test initiation
(g) Sample temperature when received at the laboratory

(2) Dilution Water

(a) Source
(b) Collection/preparation date(s) and time(s)
(c) Pretreatment (if applicable)
(d) Physical and chemical characteristics (water temperature, pH, alkalinity, hardness, specific conductance, etc.)

d. Test Conditions

(1) Toxicity test method utilized
(2) End point(s) of test
(3) Deviations from referenced method, if any, and reason(s)
(4) Date and time test started
(5) Date and time test terminated
(6) Type and volume of test chambers
(7) Volume of solution per chamber
(8) Number of organisms per test chamber
(9) Number of replicate test chambers per treatment
(10) Test temperature, pH, and dissolved oxygen as recommended by the method (to include ranges)
(11) Specify if aeration was needed
(12) Feeding frequency, amount, and type of food
(13) Specify if (and how) pH control measures were implemented
(14) Light intensity (mean)

e. Test Organisms

(1) Scientific name
(2) Life stage and age
(3) Source
(4) Disease(s) treatment (if applicable)

f. Quality Assurance

(1) Reference toxicant utilized and source
(2) Date and time of most recent chronic reference toxicant test(s), raw data, and current control chart(s). (The most recent chronic reference toxicant test shall be conducted within 30 days of the routine.)
(3) Dilution water utilized in reference toxicant test
(4) Results of reference toxicant test(s) (NOEC, IC25, etc.); report concentration-response relationship and evaluate test sensitivity
(5) Physical and chemical methods utilized

g. Results

(1) Provide raw toxicity data in tabular form, including daily records of affected organisms in each concentration (including controls) and replicate
(2) Provide table of endpoints: NOECs, IC25s, PASS/FAIL, etc. (as required in the applicable NPDES permit)
(3) Indicate statistical methods used to calculate endpoints
(4) Provide all physical and chemical data required by method
(5) Results of test(s) (NOEC, IC25, PASS/FAIL, etc.), report concentration-response relationship (definitive test only), report percent minimum significant difference (PMSD) calculated for sublethal endpoints determined by hypothesis testing.

h. Conclusions and Recommendations

(1) Relationship between test endpoints and permit limits

(2) Actions to be taken

1/ Adapted from "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, October 2002 (EPA 821-R-02-013), Section 10, Report Preparation.

C. TOTAL RESIDUAL CHLORINE (TRC) REQUIREMENTS

1. If chlorine is not utilized for disinfection purposes, TRC monitoring under Part I of this Permit is not required. If TRC monitoring is not required (conditional monitoring), "*9" or "NODI = 9" (if hard copy) should be reported on the DMR forms.

2. Testing for TRC shall be conducted according to either the amperometric titration method or the DPD colorimetric method as specified in Section 408(C) or (E), Standards Methods for the Examination of Water and Wastewater, 18th edition. If chlorine is not detected prior to actual discharge to the receiving stream using one of these methods (i.e., the analytical result is less than the detection level), the Permittee shall report on the DMR form "*B", "NODI = B" (if hard copy), or "0". The Permittee shall then be considered to be in compliance with the daily maximum concentration limit for TRC.

3. This permit contains a maximum allowable TRC level in the effluent. The Permittee is responsible for determining the minimum TRC level needed in the chlorine contact chamber to comply with E.coli limits. The effluent shall be dechlorinated if necessary to meet the maximum allowable effluent TRC level.

4. The sample collection point for effluent TRC shall be at a point downstream of the chlorine contact chamber (downstream of dechlorination if applicable). The exact location is to be approved by the Director.

D. PLANT CLASSIFICATION

The Permittee shall report to the Director within 30 days of the effective date of this permit, the name, address and operator number of the certified wastewater operator in responsible charge of the facility. Unless specified elsewhere in this permit, this facility shall be classified in accordance with ADEM Admin. Code R. 335-10-1-.03.

E. POLLUTANT SCANS

The Permittee shall sample and analyze for the pollutants listed in 40 CFR 122 Appendix J Table 2. The Permittee shall provide data from a minimum of three samples collected within the four and one half years prior to submitting a permit application. Samples must be representative of the seasonal variation in the discharge from each outfall.

F. STORM WATER REQUIREMENTS

1. Prohibitions

   a. The Permittee shall not allow the discharge of non-storm water into permitted storm water outfall(s) unless said discharge is already subject to an NPDES permit.

   b. Pollutants removed in the course of treatment or control shall be disposed in a manner that complies with all applicable Department rules and regulations.

2. Operational and Management Practices

   The permittee shall prepare and implement a Storm Water Pollution Prevention (SWPP) Plan within one year of the effective date of this permit.

   a. In the SWPP Plan, the Permittee shall:

      (1) Assess the treatment plant site by developing and presenting site drainage maps, materials inventory, and best management operational practices. The plan shall also include a description of all spill or leak sources;

      (2) Describe mechanisms and procedures to prevent the contact of sewage sludge, screenings, raw or partially treated wastewater, or any other waste product or pollutant with storm water discharged from the facility;

      (3) Provide for daily inspection on workdays of any structures that function to prevent storm water pollution or that remove pollutants from storm water;

      (4) Provide for daily inspection of the facility in general to ensure that the SWPP Plan is continually implemented and effective;

      (5) Include a Best Management Practices (BMP) Plan that, as a minimum, addresses housekeeping, preventative maintenance, spill prevention and response, and non-storm water discharges;

      (6) Describe mechanisms and procedures to provide sediment control sufficient to prevent or control storm water pollution storm water by particles resulting from soil or sediment migration from the site due to significant clearing, grading, or excavation activities;

(7) Designate by position or name the person or persons responsible for the day to day implementation of the SWPP Plan; and

(8) Bear the signature of an individual meeting signatory requirements as defined in ADEM Administrative Code, Rule 335-6-6-.09.

b. The Director or his designee may notify the permittee at any time that the SWPP Plan is deficient and will require correction of the deficiency. The permittee shall correct any SWPP Plan deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

c. Administrative Procedures

(1) A copy of the SWPP Plan shall be maintained at the facility and shall be available for inspection by the Department.

(2) A log of daily inspections required by Provision IV.F.2.a.(3.) of the permit shall be maintained at the facility and shall be made available for inspection by the Department upon request. The log shall contain records of all inspections performed and each daily entry shall be signed by the person performing the inspection.

(3) The Permittee shall provide training for any personnel required to implement the SWPP Plan and shall retain documentation of such training at the facility. Training records for all personnel shall be available for inspection by the Department. Training shall be performed prior to the date implementation is required.

3. Monitoring Requirements

a. Storm water discharged through each storm water outfall shall be sampled once per calendar year, using first flush grab samples (FFGS) collected during the first 30 minutes of discharge.

b. The total volume of storm water discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for the storm event(s) sampled. The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained in accordance with Provision I.B.5. of this permit. The volume may be measured using flow measurement devices or may be estimated using any method approved in writing by the Department.

G. SANITARY SEWER OVERFLOW RESPONSE PLAN

1. SSO Response Plan

Within 120 days of the effective date of this Permit, the Permittee shall develop a Sanitary Sewer Overflow (SSO) Response Plan to establish timely and effective methods for responding to notifiable sanitary sewer overflows. The SSO Response Plan shall address each of the following:

a. General Information:

(1) Approximate population of City/Town, if applicable

(2) Approximate number of customers served by the Permittee

(3) Identification of any subbasins designated by the Permittee, if applicable

(4) Identification of estimated linear feet of sanitary sewers

(5) Number of Pump/Lift Stations in the collection system

b. Responsibility Information:

(1) The title(s) and contact information of key position(s) who will coordinate the SSO response, including information for a backup coordinator in the event that the primary SSO coordinator is unavailable. The SSO coordinator is the person responsible for assessing the SSO and initiating a series of response actions based on the type, severity, and destination of the SSO, except for routine SSOs for which the coordinator may pre-approve written procedures. Routine SSOs are those for which the corrective action procedures are generally consistent.

(2) The title(s), and contact information of key position(s) who will respond to SSOs, including information for backup responder(s) in the event the primary responder(s) are unavailable (i.e., position(s) who provide

notification to the Department, the public, the county health department, and other affected entities such as public water systems; position(s) responsible for organizing crews for response; position(s) responsible for addressing public inquiries)

c. SSO and Surface Water Assessment

(1) Identification of locations within the collection system at which an SSO is likely to occur (e.g., based upon historical SSOs, lift stations where electricity may be lost, etc.)

(2) A map of the general collection system area, including identification of surface waterbodies and the location(s) of public drinking water source(s). Mapping of all collection system piping, pump stations, etc. is not required; however, if this information is already available, it should be included.

(3) Identification of surface waterbodies within the collection system area which are classified as Swimming according to ADEM Admin. Code chap. 335-6-11. References available to assist in this requirement include: http://www.adem.state.al.us/alEnviroRegLaws/files/Division6Vol1.pdf and http://gis.adem.alabama.gov/ADEM_Dash/use_class/index.html

(4) Identification of surface waterbodies within the collection system area which are not classified as Swimming as indicated in paragraph c above, but are known locally as areas where swimming occurs or as areas that are heavily recreated

d. Public Reporting of SSOs

(1) Contact information for the public to report an SSO to the Permittee, during both normal and outside of normal business hours (e.g., telephone number, website, email address, etc.)

(2) Information requested from the person reporting an SSO to assist the Permittee in identifying the SSO (e.g., date, time, location, contact information)

(3) Procedures for communication of the SSO report to the appropriate positions for follow-up investigation and response, if necessary

e. Procedures to immediately notify the Department, the county health department, and other affected entities (such as public water systems) upon becoming aware of notifiable SSOs

f. Public Notification Methods for SSOs

(1) A listing of methods that are feasible, as determined by the Permittee, for public notifications (e.g., flyers distributed to nearby residents; signs posted at the location of the SSO, where the SSO enters a water of the state, and/or at a central public location; signs posted at fishing piers, boat launches, parks, swimming waterbodies, etc.; website and/or social media notifications; local print or radio and broadcast media notifications; "opt in" email, text message, or automated phone message notifications)

(a) If signage is a feasible method for public notification, procedures for use and removal of signage (e.g., availability and maintenance of signs, appropriate duration of postings)

(2) Minimum information to be included in public notifications (e.g., identification that an SSO has occurred, date, duration if known, estimated volume if known, location of the SSO by street address or other appropriate method, initial destination of the SSO)

(3) Procedures developed by the Permittee for determining the appropriate public notification method(s) based upon the potential for public exposure to health risks associated with the SSO

g. Standard Procedures shall be developed by the Permittee and shall include, at a minimum:

(1) General SSO Response Procedures (e.g., procedures for dispatching staff to assess/correct an SSO; procedures for routine SSO corrective actions such as those for sewer blockages, overflowing manholes, line breakages, pump station power failure, etc.; procedures for disinfection of affected area, if applicable);

(2) Procedures for collection and proper disposal of the SSO, if feasible.

(3) General procedures for coordinating instream water quality monitoring, including, but not limited to, procedures for mobilizing staff, collecting samples, and typical test methods should the Department or the Permittee

determine monitoring is appropriate following an SSO. Identification of a contractor who will collect and analyze the sample(s) may be listed in lieu of the procedures.

(4) References to other documents (such as Standard Operating Procedures for SSO Responses) may be acceptable for this section; however, the referenced document shall be identified and shall be reviewed at a frequency of at least that required by the Administrative Procedures Section.

h. Date of the SSO Response Plan, dates of all modifications and/or reviews, the title and signature of the reviewer(s) for each date and the signature of the responsible official or the appropriate designee.

2. SSO Response Plan Implementation

Except as otherwise required by this Permit, the Permittee shall fully implement the SSO Response Plan as soon as practicable, but no later than 180 days after the effective date of this Permit.

3. Department Review of the SSO Response Plan

a. When requested by the Director or his designee, the Permittee shall make the SSO Response Plan available for review by the Department.

b. Upon review, the Director or his designee may notify the Permittee that the SSO Response Plan is deficient and require modification of the Plan.

c. Within thirty days of receipt of notification, or an alternate timeframe as approved by the Department, the Permittee shall modify any SSO Response Plan deficiency identified by the Director or his designee and shall certify to the Department that the modification has been made.

4. SSO Response Plan Administrative Procedures

a. The Permittee shall maintain a copy of the SSO Response Plan at the permitted facility or an alternate location approved by the Department in writing and shall make it available for inspection by the Department.

b. The Permittee shall make a copy of the SSO Response Plan available to the public upon written request within 30 days of such request. The Permittee may redact information which may present security issues, such as location of public water supplies, identification of specific details of vulnerabilities, employee information, etc.

c. The Permittee shall provide training for any personnel required to implement the SSO Response Plan and shall retain at the facility documentation of such training. This documentation shall be available for inspection by the Department. Training shall be provided for existing personnel prior to the date by which implementation of the SSO Response Plan is required and for new personnel as soon as possible. Should significant revisions be made to the SSO Response Plan, training regarding the revisions shall be conducted as soon as possible.

d. The Permittee shall complete a review and evaluation of the SSO Response Plan at least once every three years. Documentation of the SSO Response Plan review and evaluation shall be signed and dated by the responsible official or the appropriate designee as part of the SSO Response Plan.

NPDES PERMIT RATIONALE

NPDES Permit No:	**AL0055417**	Date: February 26, 2020
Permit Applicant:	Utilities Board of the City of Andalusia Post Office Box 790 Andalusia, Alabama 36420	
Location:	Andalusia Riverside WWTP 21938 Rabren Road Andalusia, Alabama 36420	
Draft Permit is:	Initial Issuance: Reissuance due to expiration: Modification of existing permit: Revocation and Reissuance:	 X
Basis for Limitations:	Water Quality Model: Reissuance with no modification: Instream calculation at 7Q10: Toxicity based: Secondary Treatment Levels: Other (described below):	DO, NH3-N, CBOD DO, pH, TSS, CBOD % Removal, TSS % Removal 12% TRC TSS, TSS % Removal, CBOD % Removal pH, E. coli, Zinc
Design Flow in Million Gallons per Day:	2.84 MGD	
Major:	Yes	
Description of Discharge:	Outfall Number 001; Effluent discharge to Conecuh River, which is classified as F&W. Outfall Numbers 002, 003, 004, 005, and 006; Storm water discharges to an Unnamed Tributary to Conecuh River, which is classified as F&W.	

Discussion:

This is a permit reissuance due to expiration. Limits for Five Day Carbonaceous Biochemical Oxygen Demand (CBOD), Total Ammonia-Nitrogen (NH3-N), and Dissolved Oxygen (DO) were developed based on a Waste Load Allocation (WLA) model that was completed by ADEM's Water Quality Branch (WQB) on June 27, 2018. The monthly average limits for CBOD and NH3-N are 14.0 mg/L and 2.0 mg/L, respectively. The daily minimum DO limit is 5.0 mg/L.

The pH daily minimum and daily maximum limits of 6.0 to 8.5 S.U, respectively, were developed to be supportive of the water-use classification of the receiving stream. The Total Residual Chlorine (TRC) limits of 0.098 mg/L (monthly average) and 0.169 mg/L (daily maximum) are based on EPA's recommended water quality values and on the current Toxicity Rationale, which considers the available

dilution in the receiving stream. Monitoring for TRC is only applicable if chlorine is utilized for disinfection purposes.

The Department revised bacteriological criteria in ADEM Administrative Code R.335-6-10-.09. As a result, this permit includes E. coli limits and seasons that are consistent with the revised regulations. The imposed E. coli limits were determined based on the water-use classification of the receiving stream. Since Conecuh River is classified as Fish & Wildlife, the limits for May – October are 126 col/100ml (monthly average) and 298 col/100ml (daily maximum), while the limits for November – April are 548 col/100ml (monthly average) and 2507 col/100ml (daily maximum).

The Total Suspended Solids (TSS) and TSS % removal limits of 30.0 mg/L monthly average and 85.0%, respectively, are based on the requirements of 40 CFR part 133.102 regarding Secondary Treatment. A minimum percent removal limit of 85.0% is imposed for CBOD also in accordance with 40 CFR 133.102 regarding Secondary Treatment.

This permit requires the Permittee to monitor and report the nutrient-related parameters of Total Kjeldahl Nitrogen (TKN), Nitrate plus Nitrite Nitrogen (N02+N03-N) and Total Phosphorus (TP). Monitoring for these nutrient related parameters is imposed so that sufficient information will be available regarding the nutrient contribution from this point source, should it be necessary at some later time to impose nutrient limits on this discharge.

Storm water runoff monitoring is being imposed by this permit based on 40 CFR Part 122. Storm water monitoring for DO, flow (monthly average), and TRC have been removed from this permit and is not considered backsliding since the water quality standards would be met and the revision is consistent with 40 CFR Part 122. The designated outfalls for storm water runoff monitoring are 002S, 003S, 004S, 005S, and 006S. However, storm water sampling and reporting for all outfalls may be accomplished by sampling outfall 002S, as it is representative of all other storm water outfalls. Storm water runoff is to be monitored annually.

Because this is a major facility (design capacity greater than 1 MGD) treating both municipal and industrial wastewater, chronic toxicity testing with two species (Ceriodaphnia and Pimephales) is being imposed on this permit. Toxicity testing is imposed for both survival and life-cycle impairment (i.e., growth and reproduction). Chronic toxicity at the IWC of 12 percent is required once per year during the month of August. If the toxicity tests of the effluent indicate chronic toxicity, then toxicity tests may be required to be conducted during the months of February, May, August and November.

Because this is a major facility treating both municipal and industrial wastewater, the Department completed a reasonable potential analysis (RPA) of the discharge based on the application data, DMR data, and background data from station CNR-1A. All background data test results were Below Detect except for hardness, nickel, and zinc. The RPA indicates whether pollutants in treated effluent have potential to contribute to excursions of Alabama's in-stream water quality standards. Based on the analytical data submitted by the Permittee, it appears reasonable potential may exist to cause an in-stream water quality criteria exceedance for zinc. As a result, the Department is imposing daily maximum and monthly average discharge limitations for Total Recoverable Zinc of 101 ug/l to be monitored once per quarter. Based on the analytical data submitted by the Permittee, it appears that there is not a reasonable potential to cause an in-stream water quality criteria for mercury. Therefore, mercury limits are being removed from this permit. The removal of mercury limits is not backsliding since the decrease would

result in water quality standards being obtained and the revision is consistent with the Department anti-degradation policy.

The monitoring frequency for DO, pH, TSS, NH3-N, TRC, E. coli and CBOD is three times per week. The monitoring frequency for TKN, N02+N03-N and TP is once per month. TSS % removal and CBOD % removal are to be calculated once per month. Flow is to be continuously monitored daily.

Conecuh River is a Tier I stream and the section this facility discharges to is not listed on the most recent 303(d) list. There are no TMDLs affecting this discharge.

ADEM Administrative Rule 335-6-10-.12 requires applicants for new or expanded discharges to Tier II waters demonstrate that the proposed discharge is necessary for important economic or social development in the area in which the waters are located. The application submitted by the facility is not for a new or expanded discharge to a Tier II water body, so the applicant is not required to demonstrate that the discharge is necessary for economic and social development.

Prepared by: Draper Suttles

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov

1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

FACT SHEET

APPLICATION FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE POLLUTANTS TO WATERS OF THE STATE OF ALABAMA

Date: February 25, 2020 **Prepared By:** Draper Suttles

NPDES Permit No. AL0055417

1. **Name and Address of Applicant:**

   Utilities Board of the City of Andalusia
   Post Office Box 790
   Andalusia, AL 36420

2. **Name and Address of Facility:**

   Andalusia Riverside WWTP
   21938 Rabren Road
   Andalusia, Alabama 36420

3. **Description of Applicant's Type of Facility and/or Activity Generating the Discharge:**

   Waste Water Treatment Plant and Storm Water Runoff

4. **Applicant's Receiving Waters**

Receiving Waters	Classification
Conecuh River	F&W
UT to Conecuh River	F&W

   For the Outfall latitude and longitude see the permit application.

5. **Permit Conditions:**

   See attached Rationale and Draft Permit.

6. **PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS**

   a. **Comment Period**

   The Alabama Department of Environmental Management proposes to issue this NPDES permit subject to the limitations and special conditions outlined above. This determination is tentative.

   Interested persons are invited to submit written comments on the draft permit to the following address:

Russell A. Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059
(334) 271-7714

All comments received prior to the closure of the public notice period (see public notice for date) will be considered in the formulation of the final determination with regard to this permit.

b. Public Hearing

A written request for a public hearing may be filed within the public notice period and must state the nature of the issues proposed to be raised in the hearing. A request for a hearing should be filed with the Department at the following address:

Russell A. Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059
(334) 271-7714

The Director shall hold a public hearing whenever it is found, on the basis of hearing requests, that there exists a significant degree of public interest in a permit application or draft permit. The Director may hold a public hearing whenever such a hearing might clarify one or more issues involved in the permit decision. Public notice of such a hearing will be made in accordance with ADEM Admin. Code r. 335-6-6-.21.

c. Issuance of the Permit

All comments received during the public comment period shall be considered in making the final permit decision. At the time that any final permit decision is issued, the Department shall prepare a response to comments in accordance with ADEM Admin. Code r. 335-6-6-.21. **The permit record, including the response to comments, will be available to the public via the eFile System (http://app.adem.alabama.gov/eFile/) or an appointment to review the record may be made by writing the Permits and Services Division at the above address.**

Unless a request for a stay of a permit or permit provision is granted by the Environmental Management Commission, the proposed permit contained in the Director's determination shall be issued and effective, and such issuance will be the final administrative action of the Alabama Department of Environmental Management.

d. Appeal Procedures

As allowed under ADEM Admin. Code chap. 335-2-1, any person aggrieved by the Department's final administrative action may file a request for hearing to contest such action. Such requests should be received by the Environmental Management Commission within thirty days of issuance of the permit. Requests should be filed with the Commission at the following address:

Alabama Environmental Management Commission
1400 Coliseum Blvd
(Mailing Address: Post Office Box 301463; Zip 36130-1463)
Montgomery, Alabama 36110-2059

All requests must be in writing and shall contain the information provided in ADEM Admin. Code r. 335-2-1-.04.

Facility Name: **Andalusia Riverside WWTP**

NPDES No.: **AL0055417**

8/13/2017

$$Q_d * C_d + Q_{d2} * C_{d2} + Q_s * C_s = Q_r * C_r$$

ID	Pollutant	Carcinogen "yes"	Type	Background from upstream source (C_{d2}) Daily Max ug/l	Background from upstream source (C_{d2}) Monthly Ave ug/l	Background Instream (C_s) Daily Max ug/l	Background Instream (C_s) Monthly Ave ug/l	Enter Max Daily Discharge as reported by Applicant (C_d) Max ug/l	Enter Avg Daily Discharge as reported by Applicant (C_d) Ave ug/l	Partition Coefficient (Stream / Lake)
1	Antimony		Metals	0	0	0	0	0	0	-
2	**Arsenic*,****	YES	Metals	0	0	0	0	0	0	0.574
3	Beryllium		Metals	0	0	0	0	0	0	-
4	Cadmium**		Metals	0	0	0	0	0	0	0.236
5	Chromium / Chromium III**		Metals	0	0	0	0	0	0	0.210
6	Chromium / Chromium VI**		Metals	0	0	0	0	0	0	
7	Copper**		Metals	0	0	0	0	15.4	12.4	0.388
8	Lead**		Metals	0	0	0	0	0	0	0.206
9	Mercury**		Metals	0	0	0	0	0.0356	0.00935	0.302
10	Nickel**		Metals	0	0	17.82	3.96	0	0	0.505
11	Selenium		Metals	0	0	0	0	0	0	-
12	Silver		Metals	0	0	0	0	0	0	-
13	Thallium		Metals	0	0	0	0	0	0	-
14	Zinc**		Metals	0	0	148.48	27.71	117	68.8	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	25	13.3	-
17	Hardness (As CaCO3)		Metals	0	0	53900	33812.5	44800	43100	-
18	Acrolein		VOC	0	0	0	0	0	0	-
19	**Acrylonitrile***	YES	VOC	0	0	0	0	0	0	-
20	**Aldrin**	YES	VOC	0	0	0	0	0	0	-
21	**Benzene***	YES	VOC	0	0	0	0	0	0	-
22	**Bromoform***	YES	VOC	0	0	0	0	0	0	-
23	**Carbon Tetrachloride***	YES	VOC	0	0	0	0	0	0	-
24	**Chlordane**	YES	VOC	0	0	0	0	0	0	-
25	Clorobenzene		VOC	0	0	0	0	0	0	-
26	**Chlorodibromo-Methane***	YES	VOC	0	0	0	0	0	0	-
27	Chloroethane		VOC	0	0	0	0	0	0	-
28	2-Chloro-Ethylvinyl Ether		VOC	0	0	0	0	0	0	-
29	**ChloroForm***	YES	VOC	0	0	0	0	2.82	0.94	-
30	**4,4'-DDD**	YES	VOC	0	0	0	0	0	0	-
31	**4,4'-DDE**	YES	VOC	0	0	0	0	0	0	-
32	**4,4'-DDT**	YES	VOC	0	0	0	0	0	0	-
33	**Dichlorobromo-Methane***	YES	VOC	0	0	0	0	0	0	-
34	1, 1-Dichloroethane		VOC	0	0	0	0	0	0	-
35	**1, 2-Dichloroethane***	YES	VOC	0	0	0	0	0	0	-
36	Trans-1, 2-Dichloro-Ethylene		VOC	0	0	0	0	0	0	-
37	**1, 1-Dichloroethylene***	YES	VOC	0	0	0	0	0	0	-
38	1, 2-Dichloropropane		VOC	0	0	0	0	0	0	-
39	1, 3-Dichloro-Propylene		VOC	0	0	0	0	0	0	-
40	**Dieldrin**	YES	VOC	0	0	0	0	0	0	-
41	Ethylbenzene		VOC	0	0	0	0	0	0	-
42	Methyl Bromide		VOC	0	0	0	0	0	0	-
43	Methyl Chloride		VOC	0	0	0	0	0	0	-
44	**Methylene Chloride***	YES	VOC	0	0	0	0	0	0	-
45	**1, 1, 2, 2-Tetrachloro-Ethane***	YES	VOC	0	0	0	0	0	0	-
46	**Tetrachloro-Ethylene***	YES	VOC	0	0	0	0	0	0	-
47	Toluene		VOC	0	0	0	0	0	0	-
48	**Toxaphene**	YES	VOC	0	0	0	0	0	0	-
49	**Tributyltine (TBT)**	YES	VOC	0	0	0	0	0	0	-
50	1, 1, 1-Trichloroethane		VOC	0	0	0	0	0	0	-
51	**1, 1, 2-Trichloroethane***	YES	VOC	0	0	0	0	0	0	-
52	**Trichlorethylene***	YES	VOC	0	0	0	0	0	0	-
53	**Vinyl Chloride***	YES	VOC	0	0	0	0	0	0	-
54	P-Chloro-M-Cresol		Acids	0	0	0	0	0	0	-
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-
56	2, 4-Dichlorophenol		Acids	0	0	0	0	0	0	-
57	2, 4-Dimethylphenol		Acids	0	0	0	0	0	0	-
58	4, 6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-
59	2, 4-Dinitrophenol		Acids	0	0	0	0	0	0	-
60	**4,6-Dinitro-2-methylphenol**	YES	Acids	0	0	0	0	0	0	-
61	**Dioxin (2,3,7,8-TCDD)**	YES	Acids	0	0	0	0	0	0	-
62	2-Nitrophenol		Acids	0	0	0	0	0	0	-
63	4-Nitrophenol		Acids	0	0	0	0	0	0	-
64	**Pentachlorophenol***	YES	Acids	0	0	0	0	0	0	-
65	Phenol		Acids	0	0	0	0	0	0	-
66	**2, 4, 6-Trichlorophenol***	YES	Acids	0	0	0	0	0	0	-
67	Acenaphthene		Bases	0	0	0	0	0	0	-
68	Acenaphthylene		Bases	0	0	0	0	0	0	-
69	Anthracene		Bases	0	0	0	0	0	0	-
70	Benzidine		Bases	0	0	0	0	0	0	-
71	**Benzo(A)Anthracene***	YES	Bases	0	0	0	0	0	0	-
72	**Benzo(A)Pyrene***	YES	Bases	0	0	0	0	0	0	-
73	3, 4 Benzo-Fluoranthene		Bases	0	0	0	0	0	0	-
74	Benzo(GHI)Perylene		Bases	0	0	0	0	0	0	-
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	0	0	-
76	Bis (2-Chloroethoxy) Methane		Bases	0	0	0	0	0	0	-
77	**Bis (2-Chloroethyl)-Ether***	YES	Bases	0	0	0	0	0	0	-
78	Bis (2-Chloroiso-Propyl) Ether		Bases	0	0	0	0	0	0	-
79	**Bis (2-Ethylhexyl) Phthalate***	YES	Bases	0	0	0	0	0	0	-
80	4-Bromophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
81	Butyl Benzyl Phthalate		Bases	0	0	0	0	0	0	-
82	2-Chloronaphthalene		Bases	0	0	0	0	0	0	-
83	4-Chlorophenyl Phenyl Ether		Bases	0	0	0	0	0	0	-
84	**Chrysene***	YES	Bases	0	0	0	0	0	0	-
85	Di-N-Butyl Phthalate		Bases	0	0	0	0	0	0	-
86	Di-N-Octyl Phthalate		Bases	0	0	0	0	0	0	-
87	**Dibenzo(A,H)Anthracene***	YES	Bases	0	0	0	0	0	0	-
88	1, 2-Dichlorobenzene		Bases	0	0	0	0	0	0	-
89	1, 3-Dichlorobenzene		Bases	0	0	0	0	0	0	-
90	1, 4-Dichlorobenzene		Bases	0	0	0	0	0	0	-
91	**3, 3-Dichlorobenzidine***	YES	Bases	0	0	0	0	0	0	-
92	Diethyl Phthalate		Bases	0	0	0	0	0	0	-
93	Dimethyl Phthalate		Bases	0	0	0	0	0	0	-
94	**2, 4-Dinitrotoluene***	YES	Bases	0	0	0	0	0	0	-
95	2, 6-Dinitrotoluene		Bases	0	0	0	0	0	0	-
96	1,2-Diphenylhydrazine		Bases	0	0	0	0	0	0	-
97	**Endosulfan (alpha)**	YES	Bases	0	0	0	0	0	0	-
98	**Endosulfan (beta)**	YES	Bases	0	0	0	0	0	0	-
99	**Endosulfan sulfate**	YES	Bases	0	0	0	0	0	0	-
100	**Endrin**	YES	Bases	0	0	0	0	0	0	-
101	**Endrin Aldeyhide**	YES	Bases	0	0	0	0	0	0	-
102	Fluoranthene		Bases	0	0	0	0	0	0	-
103	Fluorene		Bases	0	0	0	0	0	0	-
104	Heptochlor	YES	Bases	0	0	0	0	0	0	-
105	Heptachlor Epoxide	YES	Bases	0	0	0	0	0	0	-
106	**Hexachlorobenzene***	YES	Bases	0	0	0	0	0	0	-
107	**Hexachlorobutadiene***	YES	Bases	0	0	0	0	0	0	-
108	**Hexachlorocyclohexan (alpa)**	YES	Bases	0	0	0	0	0	0	-
109	**Hexachlorocyclohexan (beta)**	YES	Bases	0	0	0	0	0	0	-
110	**Hexachlorocyclohexan (gamma)**	YES	Bases	0	0	0	0	0	0	-
111	HexachlorocycloPentadiene		Bases	0	0	0	0	0	0	-
112	Hexachloroethane		Bases	0	0	0	0	0	0	-
113	**Indeno(1, 2, 3-CK)Pyrene***	YES	Bases	0	0	0	0	0	0	-
114	Isophorone		Bases	0	0	0	0	0	0	-
115	Naphthalene		Bases	0	0	0	0	0	0	-
116	Nitrobenzene		Bases	0	0	0	0	0	0	-
117	**N-Nitrosodi-N-Propylamine***	YES	Bases	0	0	0	0	0	0	-
118	**N-Nitrosodi-N-Methylamine***	YES	Bases	0	0	0	0	0	0	-
119	**N-Nitrosodi-N-Phenylamine***	YES	Bases	0	0	0	0	0	0	-
120	**PCB-1016**	YES	Bases	0	0	0	0	0	0	-
121	**PCB-1221**	YES	Bases	0	0	0	0	0	0	-
122	**PCB-1232**	YES	Bases	0	0	0	0	0	0	-
123	**PCB-1242**	YES	Bases	0	0	0	0	0	0	-
124	**PCB-1248**	YES	Bases	0	0	0	0	0	0	-
125	**PCB-1254**	YES	Bases	0	0	0	0	0	0	-
126	**PCB-1260**	YES	Bases	0	0	0	0	0	0	-
127	Phenanthrene		Bases	0	0	0	0	0	0	-
128	Pyrene		Bases	0	0	0	0	0	0	-
129	1, 2, 4-Trichlorobenzene		Bases	0	0	0	0	0	0	-

* average

2.84	Enter Q_d = wastewater discharge flow from facility (MGD)
4.39413036	Q_d = wastewater discharge flow (cfs) (this value is calculated from the MGD)
0	Enter flow from upstream discharge Qd2 = background stream flow in MGD above point of discharge
0	Qd2 = background stream flow from upstream source (cfs)
34.61	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
25.96	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
771	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
98.91	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
[illegible] Lake	Enter C_s = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
Q_d +Qd2+Q_s	Q_r = resultant in-stream flow, after discharge
Calculated on other	C_r = resultant in-stream pollutant concentration in µg/l in the stream (after complete mixing occurs)
33.8	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of Birmingham)
7.80 s.u.	Enter, Background pH above point of discharge
YES	Enter, Is discharge to a stream? "YES" Other option would be to a Lake. (This changes the partition coefficients for the metals)

** Using Partition Coefficients

August 17, 2020

Facility Name: Andalusia Riverside WWTP

NPDES No.: AL0056417

Freshwater F&W classification.						Freshwater Acute (µg/l) Q_s =1Q10					Freshwater Chronic (µg/l) Q_s = 7Q10					Human Health Consumption Fish only (µg/l) Carcinogen Q_s = Annual Average Non-Carcinogen Q_s = 7Q10			
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd2) Daily Max	Max Daily Discharge as reported by Applicant (C_{max})	Water Quality Criteria (C_s)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?	Background from upstream source (Cd2) Monthly Ave	Avg Daily Discharge as reported by Applicant (C_{avg})	Water Quality Criteria (C_s)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?	Water Quality Criteria (C_s)	Draft Permit Limit (C_{max})	20% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.31E+03	6.63E+02	No
2	Arsenic		YES	0	0	[illegible]	4091.776	818.355	No	0	0	[illegible]	2319.621	463.924	No	3.03E-01	5.35E+01	1.07E+01	No
3	Beryllium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0	[illegible]	20.508	4.102	No	0	0	[illegible]	4.349	0.870	No	-	-	-	-
5	Chromium/ Chromium III			0	0	[illegible]	7709.087	1541.817	No	0	0	[illegible]	1288.559	257.712	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	[illegible]	110.526	22.105	No	0	0	[illegible]	97.641	19.528	No	-	-	-	-
7	Copper			0	18.4	[illegible]	86.105	17.221	No	0	12.4	[illegible]	61.080	16.216	No	-	-	-	-
8	Lead			0	0	[illegible]	653.147	130.629	No	0	0	[illegible]	32.705	8.541	No	-	-	-	-
9	Mercury			0	0.0356	[illegible]	16.579	3.316	No	0	0.00935	[illegible]	0.107	0.021	No	4.24E-02	3.77E-01	7.53E-02	No
10	Nickel			0	0	[illegible]	2453.199	490.640	No	0	0	[illegible]	333.956	66.791	No	9.93E+02	8.78E+03	1.76E+03	No
11	Selenium			0	0	[illegible]	136.158	27.632	No	0	0	[illegible]	44.382	8.876	No	[illegible]	2.16E+04	4.31E+03	No
12	Silver			0	0	[illegible]	3.440	0.688	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.43E+00	4.86E-01	No
14	Zinc	YES		0	117	[illegible]	101.245	20.249	Yes	0	68.8	[illegible]	1049.303	209.861	No	1.49E+04	1.32E+05	2.64E+04	No
15	Cyanide			0	0	[illegible]	161.973	30.395	No	0	0	[illegible]	46.157	9.231	No	[illegible]	8.28E+04	1.86E+04	No
16	Total Phenolic Compounds			0	25	-	-	-	-	0	13.3	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	44800	-	-	-	-	0	43100	-	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.82E+01	9.63E+00	No
19	Acrylonitrile		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.54E+01	5.08E+00	No
20	Aldrin		YES	0	0	[illegible]	20.724	4.145	No	0	0	-	-	-	-	[illegible]	5.19E-03	1.04E-03	No
21	Benzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.73E+03	5.46E+02	No
22	Bromoform		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.36E+04	2.78E+03	No
23	Carbon Tetrachloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.69E+02	3.38E+01	No
24	Chlordane		YES	0	0	[illegible]	16.579	3.316	No	0	0	[illegible]	0.038	0.008	No	[illegible]	8.34E-02	1.67E-02	No
25	Clorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.04E+03	1.61E+03	No
26	Chlorodibromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.31E+03	2.61E+02	No
27	Chloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	2.82	-	-	-	-	0	0.94	-	-	-	-	[illegible]	1.80E+04	3.60E+03	No
30	4,4' - DDD		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.20E-02	6.40E-03	No
31	4,4' - DDE		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.26E-02	4.52E-03	No
32	4,4' - DDT		YES	0	0	1.100	7.599	1.520	No	0	0	0.001	0.009	0.002	No	[illegible]	2.26E-02	4.52E-03	No
33	Dichlorobromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.77E+03	3.54E+02	No
34	1, 1-Dichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.77E+03	7.54E+02	No
36	Trans-1, 2-Dichloro-Ethylene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.24E+04	1.05E+04	No
37	1, 1-Dichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.35E+05	1.47E+05	No
38	1, 2-Dichloropropane			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.54E+01	1.51E+01	No
39	1, 3-Dichloro-Propylene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.09E+02	2.18E+01	No
40	Dieldrin		YES	0	0	[illegible]	1.656	0.332	No	0	0	[illegible]	0.497	0.099	No	[illegible]	3.51E-03	1.10E-03	No
41	Ethylbenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.10E+04	2.21E+03	No
42	Methyl Bromide			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.73E+03	1.55E+03	No
43	Methyl Chloride			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.10E+04	1.22E+04	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.12E+02	8.23E+01	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.36E+02	6.77E+01	No
47	Toluene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.74E+04	1.55E+04	No
48	Toxaphene		YES	0	0	[illegible]	5.043	1.009	No	0	0	[illegible]	0.002	0.000	No	[illegible]	2.86E-02	5.71E-03	No
49	Tributyltin (TBT)		YES	0	0	[illegible]	3.178	0.636	No	0	0	[illegible]	0.839	0.128	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.61E+03	3.21E+02	No
52	Trichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.08E+03	6.17E+02	No
53	Vinyl Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.51E+02	5.03E+01	No
54	P-Chloro-M-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.73E+02	1.55E+02	No
56	2, 4-Dichlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.53E+03	3.05E+02	No
57	2, 4-Dimethylphenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.42E+03	8.83E+02	No
58	4, 6-Dinitro-O-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.78E+04	5.52E+03	No
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.92E+04	5.84E+03	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.71E-08	9.41E-07	No
62	2-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	[illegible]	60.260	12.052	No	0	0	[illegible]	59.406	11.881	No	[illegible]	3.12E+02	6.24E+01	No
65	Phenol			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.44E+06	8.88E+05	No
66	2, 4, 6-Trichlorophenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.50E+02	4.99E+01	No
67	Acenaphthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.14E+03	1.03E+03	No
68	Acenaphthylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.07E+05	4.14E+04	No
70	Benzidine			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.03E-03	2.05E-04	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.88E+00	3.76E-01	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.88E+00	3.76E-01	No
73	Benzo(b)fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.46E-02	1.89E-02	No
74	Benzo(GHI)Perylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.46E-02	1.89E-02	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.42E+01	1.08E+01	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.35E+05	6.71E+04	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.26E+02	4.52E+01	No
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.00E+04	2.00E+03	No
82	2-Chloronaphthalene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.20E+03	1.64E+03	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.88E+00	3.76E-01	No
85	Di-N-Butyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.33E+04	4.65E+03	No
86	Di-N-Octyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.88E+00	3.76E-01	No
88	1, 2-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	8.71E+03	1.34E+03	No
89	1, 3-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.99E+03	9.98E+02	No
90	1, 4-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.98E+02	2.00E+02	No
91	3, 3-Dichlorobenzidine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.93E+00	5.87E-01	No
92	Diethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.27E+05	4.54E+04	No
93	Dimethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.75E+06	1.15E+06	No
94	2, 4-Dinitrotoluene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.50E+02	6.99E+01	No
95	2, 6-Dinitrotoluene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.04E+00	2.08E-01	No
97	Endosulfan (alpha)		YES	0	0	[illegible]	1.520	0.304	No	0	0	[illegible]	0.497	0.099	No	[illegible]	9.15E+03	1.83E+03	No
98	Endosulfan (beta)		YES	0	0	[illegible]	1.520	0.304	No	0	0	[illegible]	0.497	0.099	No	[illegible]	9.15E+03	1.83E+03	No
99	Endosulfan sulfate		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	9.15E+03	1.83E+03	No
100	Endrin		YES	0	0	[illegible]	0.594	0.119	No	0	0	[illegible]	0.320	0.064	No	[illegible]	6.22E+00	1.24E+00	No
101	Endrin Aldeyhde		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.11E+01	6.22E+00	No
102	Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	7.20E+02	1.44E+02	No
103	Fluorene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.78E+04	5.52E+03	No
104	Heptochlor		YES	0	0	[illegible]	3.592	0.718	No	0	0	[illegible]	0.034	0.007	No	[illegible]	8.17E-03	1.63E-03	No
105	Heptachlor Epoxide		YES	0	0	[illegible]	3.592	0.718	No	0	0	[illegible]	0.034	0.007	No	[illegible]	4.04E-03	8.08E-04	No
106	Hexachlorobenzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.98E-02	5.92E-03	No
107	Hexachlorobutadiene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.90E+03	3.80E+02	No
108	Hexachlorocyclohexan (alpha)		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.03E-01	1.01E-01	No
109	Hexachlorocyclohexan (beta)		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.76E+00	3.52E-01	No
110	Hexachlorocyclohexan (gamma)		YES	0	0	[illegible]	6.562	1.312	No	0	0	[illegible]	-	-	-	[illegible]	1.90E+02	3.80E+01	No
111	HexachlorocycloPentadiene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.73E+03	1.15E+03	No
112	Hexachloroethane			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.70E+01	3.40E+00	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	1.88E+00	3.76E-01	No
114	Isophorone			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	4.96E+03	9.98E+02	No
115	Naphthalene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.58E+03	7.17E+02	No
117	N-Nitrosodi-N-Propylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	5.21E+01	1.04E+01	No
118	N-Nitrosodimethylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.11E+02	6.21E+01	No
119	N-Nitrosodiphenylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	6.18E+02	1.24E+02	No
120	PCB-1016		YES	0	0	-	-	-	-	0	0	[illegible]	0.124	0.025	No	[illegible]	6.80E-03	1.32E-03	No
121	PCB-1221		YES	0	0	-	-	-	-	0	0	[illegible]	0.124	0.025	No	[illegible]	6.80E-03	1.32E-03	No
122	PCB-1232		YES	0	0	-	-	-	-	0	0	[illegible]	0.124	0.025	No	[illegible]	6.80E-03	1.32E-03	No
123	PCB-1242		YES	0	0	-	-	-	-	0	0	[illegible]	0.124	0.025	No	[illegible]	6.80E-03	1.32E-03	No
124	PCB-1248		YES	0	0	-	-	-	-	0	0	[illegible]	0.124	0.025	No	[illegible]	6.80E-03	1.32E-03	No
125	PCB-1254		YES	0	0	-	-	-	-	0	0	[illegible]	0.124	0.025	No	[illegible]	6.80E-03	1.32E-03	No
126	PCB-1260		YES	0	0	-	-	-	-	0	0	[illegible]	0.124	0.025	No	[illegible]	6.80E-03	1.32E-03	No
127	Phenanthrene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	2.07E+04	4.14E+03	No
129	1, 2, 4-Trichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	[illegible]	3.63E+02	7.27E+01	No

Andalusia Mercury Data

Monitoring Period End Date	Monthly Average	Maximum Daily	Conc Unit	
June 30, 2014	0	0	ug/l	
March 31, 2014	0	0	ug/l	
September 30, 2014	0	0	ug/l	
December 31, 2014	0.0093	0.0093	ug/l	
June 30, 2015	0.032	0.032	ug/l	
March 31, 2015	0.0043	0.0043	ug/l	
September 30, 2015	0.0054	0.0054	ug/l	(Pollutant Scan #1)
December 31, 2015	0.031	0.031	ug/l	
March 31, 2016	0.0072	0.0072	ug/l	
June 30, 2016	0.011	0.011	ug/l	
September 30, 2016	0.0079	0.0079	ug/l	
December 31, 2016	0.022	0.022	ug/l	
June 30, 2017	0.00209	0.00209	ug/l	
March 31, 2017	0.0231	0.0231	ug/l	
September 30, 2017	0.00273	0.00273	ug/l	
December 31, 2017	0.00958	0.00958	ug/l	
March 31, 2018	0.00682	0.00682	ug/l	(Pollutant Scan #2)
June 30, 2018	0.0024	0.0024	ug/l	
September 30, 2018	0.000849	0.000849	ug/l	
December 31, 2018	0.0356	0.0356	ug/l	
March 31, 2019	0.0066	0.0066	ug/l	
June 30, 2019	0.000427	0.000427	ug/l	
September 30, 2019	0.0023	0.0023	ug/l	
December 31, 2019	0.00523	0.00523	ug/l	
Pollutant Scan #3	0.0058			
Max:	0.0356			
Average:	0.00935			

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	**Andalusia Riverside WWTP**	
NPDES Permit Number:	**AL0055417**	
Receiving Stream:	**Conecuh River**	
Facility Design Flow (Q_w):	**2.840 MGD**	
Receiving Stream $7Q_{10}$:	**34.610 cfs**	
Receiving Stream $1Q_{10}$:	**25.960 cfs**	
Winter Headwater Flow (WHF):	**96.91 cfs**	
Summer Temperature for CCC:	**30 deg. Celsius**	
Winter Temperature for CCC:	**30 deg. Celsius**	
Headwater Background NH_3-N Level:	**0.11 mg/l**	
Receiving Stream pH:	**7.0 s.u.**	
Headwater Background FC Level (summer):	**N./A.**	**(Only applicable for facilities with diffusers.)**
(winter)	**N./A.**	

The Stream Dilution Ration (SDR) is calculated using the 7Q10 for all stream classifications.

$$\text{Stream Dilution Ration (SDR)} = \frac{Qw}{7Q10 + Qw} = \textbf{11.27\%}$$

AMMONIA TOXICITY LIMITATIONS

Toxicity-based ammonia limits are calculated in accordance with the *Ammonia Toxicity Protocol* and the *General Guidance for Writing Water Quality Based Toxicity Permits.*

If the Limiting Dilution is less than 1%, the waterbody is considered stream-dominated and the CMC applies.
If the Limiting Dilution is greater than 1%, the waterbody is considered effluent-dominated and the CCC applies.

$$\text{Limiting Dilution} = \frac{Q_w}{7Q_{10} + Q_w}$$

$$= \textbf{11.27\%} \qquad \textbf{Effluent-Dominated, CCC Applies}$$

Criterion Maximum Concentration (CMC): $CMC=0.411/(1+10^{(7.204-pH)}) + 58.4/(1+10^{(pH-7.204)})$

Criterion Continuous Concentration (CCC): $CCC=[0.0577/(1+10^{(7.688-pH)}) + 2.487/(1+10^{(pH-7.688)})] * Min[2.85,1.45*10^{(0.028*(25-T))}]$

	CMC	CCC
Allowable Summer Instream NH_3-N:	**36.09 mg/l**	**2.18 mg/l**
Allowable Winter Instream NH_3-N:	**36.09 mg/l**	**2.18 mg/l**

$$\text{Summer } NH_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream } NH_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater } NH_3\text{-N}) * (7Q_{10})]}{Q_w}$$

$$= \textbf{18.5 mg/l NH3-N at 7Q10}$$

$$\text{Winter } NH_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream } NH_3\text{-N}) * (WHF + Q_w)] - [(\text{Headwater } NH_3\text{-N}) * (WHF)]}{Q_w}$$

$$= \textbf{N./A.}$$

The ammonia limits established in the permit will be the lesser of the DO-based ammonia limit (from the wasteload allocation model) or the toxicity limits calculated above.

	DO-based NH3-N limit	Toxicity-based NH3-N limit
Summer	**2.00 mg/l NH3-N**	**18.50 mg/l NH3-N**
Winter	**N./A.**	**N./A.**

Summer: The DO based limit of 2.00 mg/l NH3-N applies.
Winter limits are not applicable.

TOXICITY TESTING REQUIREMENTS (REFERENCE: MUNICIPAL BRANCH TOXICITY PERMITTING STRATEGY)

The following factors trigger toxicity testing requirements:

1. Facility design flow is equal to or greater than 1.0 MGD (major facility).
2. There are significant industrial contributors (SID permits).

Acute toxicity testing is specified for A&I receiving streams, or for stream dilution ratios of 1% or less.
Chronic toxicity testing is specified for all other situations requiring toxicity testing.

Chronic toxicity testing is required

Instream Waste Concentration (IWC) = $\frac{Qw}{7Q10 + Qw}$ = **11.27%** Note: This number will be rounded up for toxicity testing purposes.

DISINFECTION REQUIREMENTS

Bacteria limits are required, and will be the water quality limit for the receiving stream, except where diffusers are used the limit may be adjusted for the dilution provided by the diffuser.

See the attached Disinfection Guidance for applicable stream standards.

(Non-coastal limits apply)
Applicable Stream Classification: **Fish & Wildlife**
Disinfection Type: **Chlorination**
Limit calculation method: **Limits based on meeting stream standards at the point of discharge.**

	Stream Standard (colonies/100ml)	Effluent Limit (colonies/100ml)
E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)		
Monthly limit as monthly average (November through April):	548	**548**
Monthly limit as monthly aveage (May through October):	126	**126**
Daily Max (November through April):	2507	**2507**
Daily Max (May through October):	298	**298**
Enterococci (applies to Coastal)		
Monthly limit as geometric mean (November through April):	Not applicable	**Not applicable**
Monthly limit as geometric mean (May through October):	Not applicable	**Not applicable**
Daily Max (November through April):	Not applicable	**Not applicable**
Daily Max (May through October):	Not applicable	**Not applicable**

MAXIMUM ALLOWABLE CHLORINATION LIMITS

Toxicity-based chlorine limits are calculated in accordance with the General Guidance for Writing Water Quality Based Toxicity Permits.

Chlorine has been shown to be acutely toxic at 0.019 mg/l and chronically toxic at 0.011 mg/l.

Maximum allowable TRC in effluent:	0.098 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.169 mg/l (acute)	(0.019)/(SDR)

NOTE: A maximum chlorine limit will be imposed such that the instream concentration will not exceed acutely toxic concentrations in A & I streams and chronically toxic concentrations in all other streams, but may not exceed 1.0 mg/l.

Prepared By: Draper Suttles Date: 8/17/2020

Waste Load Allocation Summary

REQUEST INFORMATION

Request Number: 3482

From: Stephanie Ammons | In Branch/Section: Municipal

Date Submitted: 5/9/2018 | Date Required: 6/8/2018 | FUND Code: 605

Date Permit application received by NPDES program: 3/14/2018

Receiving Waterbody: Conecuh River

Previous Stream Name:

Facility Name: Andalusia Riverside WWTP (Name of Discharger-WQ will use to file)

Previous Discharger Name:

River Basin: Escambia | Outfall Latitude: 31.309529 (decimal degrees)

*County: Covington | Outfall Longitude: -86.530797 (decimal degrees)

Permit Number: AL0055417 | Permit Type: Permit Reissuance

Permit Status: Active

Type of Discharger: MUNICIPAL

Do other discharges exist that may impact the model? ☐ Yes ☑ No

If yes, impacting dischargers names.

Impacting dischargers permit numbers.

Existing Discharge Design Flow: 2.84 MGD

Proposed Discharge Design Flow: 2.84 MGD

Note: The flow rates given should be those requested for modeling.

Comments included: ☑ Yes ☐ No

Information Verified By:

Year File Was Created: 1985

Response ID Number: 1652

Lat/Long Method: GPS

12 Digit HUC Code: 031403010502

Use Classification: F&W

Site Visit Completed? ☑ Yes ☐ No | Date of Site Visit: 5/14/2018

Waterbody Impaired? ☐ Yes ☑ No | Date of WLA Response: 6/27/2018

Antidegradation ☐ Yes ☑ No | Approved TMDL? ☐ Yes ☑ No

Waterbody Tier Level: Tier I

Use Support Category: 1 | Approval Date of TMDL:

Waste Load Allocation Information

Modeled Reach Length: 20.94 Miles | Date of Allocation: 6/7/2018

Name of Model Used: SWQM | Allocation Type: Annual

Model Completed by: Keosha Powell | Type of Model Used: Desk-top

Allocation Developed by: Water Quality Branch

Waste Load Allocation Summary

Annual Effluent Limits		
Qw	2.84	MGD
CBOD5	14	
NH3-N	2	
TKN		
D.O.	5	

Conventional Parameters				Other Parameters			
Qw	MGD	Qw	MGD	Qw	MGD	Qw	MGD
Season		Season		Season		Season	
From		From		From		From	
Through		Through		Through		Through	
CBOD5		CBOD5		TP		TP	
NH3-N		NH3-N		TN		TN	
TKN		TKN		TSS		TSS	
D.O		D.O.					

"Monitor Only" Parameters for Effluent:	Parameter	Frequency	Parameter	Frequency
	TKN	Monthly		
	NO2+NO3-N	Monthly		
	TP	Monthly		

Water Quality Characteristics Immediately Upstream of Discharge

Parameter	Summer		Winter	
CBODu	2	mg/l		mg/l
NH3-N	0.11	mg/l		mg/l
Temperature	30	°C		°C
pH	7	su		su

Hydrology at Discharge Location

Drainage Area Qualifier				Method Used to Calculate
Estimated	Drainage Area	1298	sq mi	
	Stream 7Q10	34.61	cfs	ADEM Estimate w/USGS Gage Data
	Stream 1Q10	25.96	cfs	75%of 7Q10
	Stream 7Q2	96.91	cfs	ADEM Estimate w/USGS Gage Data
	Annual Average	771	cfs	ADEM Estimate w/USGS Gage Data

Comments and/or Notations: Annual effluent limits were revised based on an updated headwater 7Q10, which was based on a reference gauge (02372422) located upstream of the outfall.

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: S F AL0055417 T/A C D

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

RECEIVED MAR 14 2018 IND / MUN BRANCH

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)	X (18)	(17)	X (18)	B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)	(19)	X (20)	(21)
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	(22)	X (23)	(24)	D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)	(25)	X (26)	(27)
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	(28)	X (29)	(30)	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	(31)	X (32)	(33)
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	(34)	X (35)	(36)	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	(37)	X (38)	(39)
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	(40)	X (41)	(42)	J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)	(43)	X (44)	(45)

III. NAME OF FACILITY

1 | SKIP | Riverside Wastewater Treatment Plant

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 Kelley, Mike Wastewater Operations Manager	(334) 222-8208

V. FACILTY MAILING ADDRESS

A. STREET OR P.O. BOX

3 P.O. Box 790 21938 Rabren Road

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 Andalusia	AL	36420

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 21938 Rabren Road

B. COUNTY NAME

Covington

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 Andalusia	AL	36420	1039

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST	B. SECOND
4952 (specify) Sewerage Systems	NA (specify)
C. THIRD	**D. FOURTH**
NA (specify)	NA (specify)

VIII. OPERATOR INFORMATION

A. NAME	B. Is the name listed in Item VIII-A also the owner?
Utilities Board of the City of Andalusia	☑ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other," specify.)*		D. PHONE *(area code & no.)*
F = FEDERAL S = STATE P = PRIVATE M = PUBLIC *(other than federal or state)* O = OTHER *(specify)*	M (specify)	A (334) 222-8208

E. STREET OR P.O. BOX	F. CITY OR TOWN	G. STATE	H. ZIP CODE	IX. INDIAN LAND
P.O. Box 790	Andalusia	AL	36420	Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*	D. PSD *(Air Emissions from Proposed Sources)*
N AL0055417	P NA
B. UIC *(Underground Injection of Fluids)*	**E. OTHER** *(specify)*
U NA	NA (specify)
C. RCRA *(Hazardous Wastes)*	**E. OTHER** *(specify)*
R NA	NA (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

The Riverside WWTP provides treatment to a primary domestic waste stream generated by the City of Andalusia.

XIII. CERTIFICATION *(see instructions)*

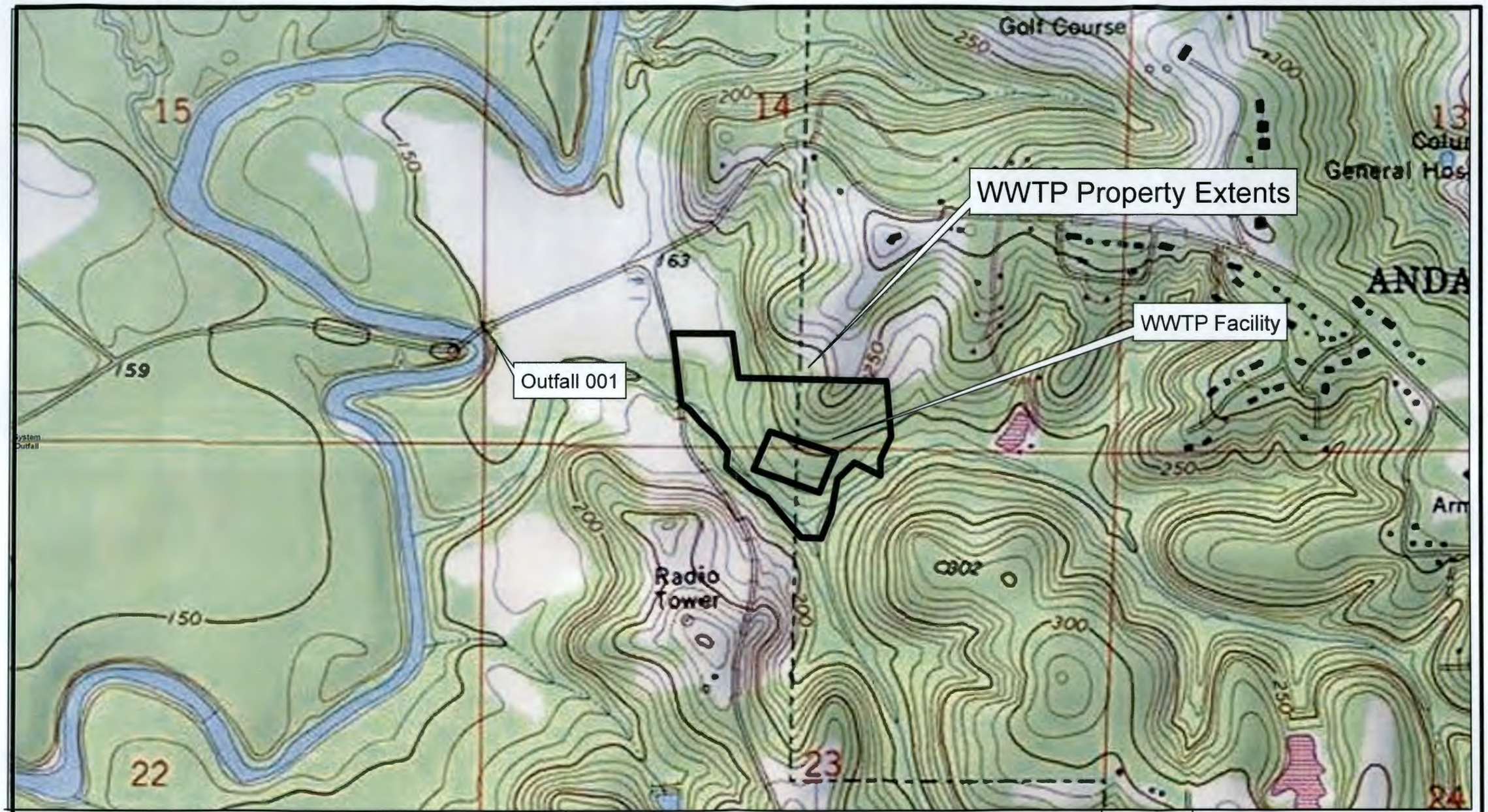
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Earl V. Johnson Mayor		3/13/18

COMMENTS FOR OFFICIAL USE ONLY

C

Appendix



Utilities Board of the City of Andalusia

Riverside WWTP Site Map

Andalusia, AL

1840 E. Three Notch St.
Andalusia, AL 36420
(334) 222-9431
(334) 222-4018 FAX
www.cdge.com

Sheet No. 1

Drawn By: CDC

Checked by: CDC

Date: February 2018

Appendix

Utilities Board of the City of Andalusia

Riverside WWTP Site Map

Andalusia, AL

1840 E. Three Notch St.
Andalusia, AL 36420
(334) 222-9431
(334) 222-4018 FAX
www.cdge.com

Sheet No. 1

Drawn By: CDC

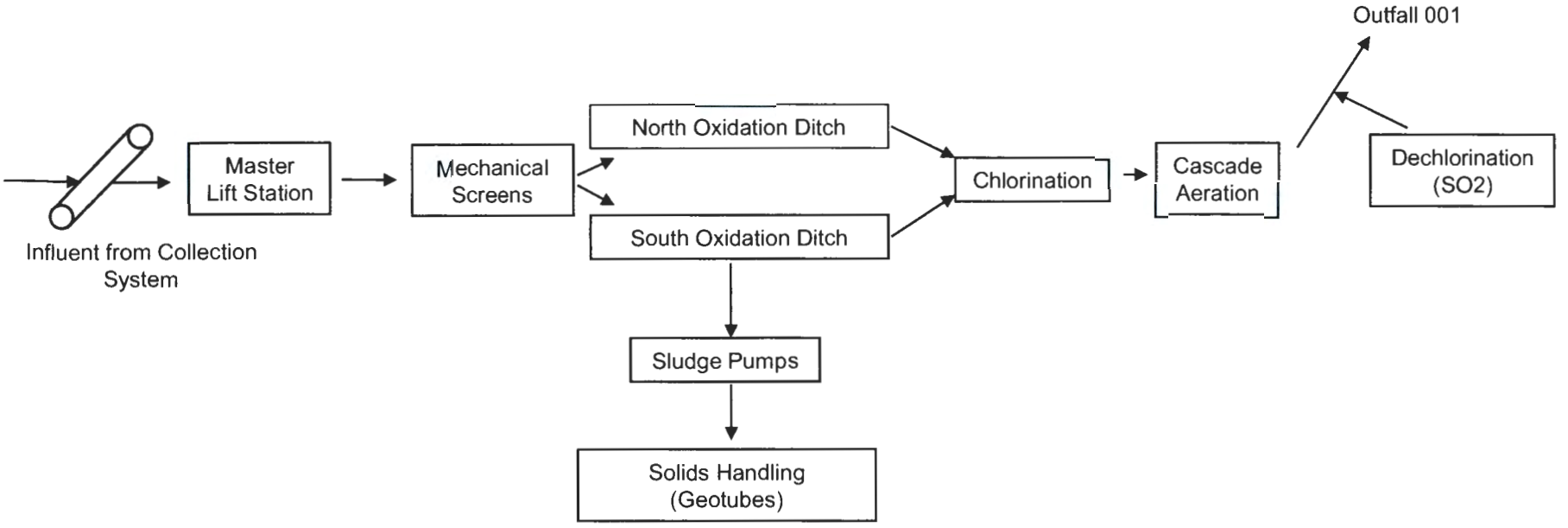
Checked by: CDC

Date: February 2018

Utilities Board of the City of Andalusia

Riverside Wastewater Treatment Plant

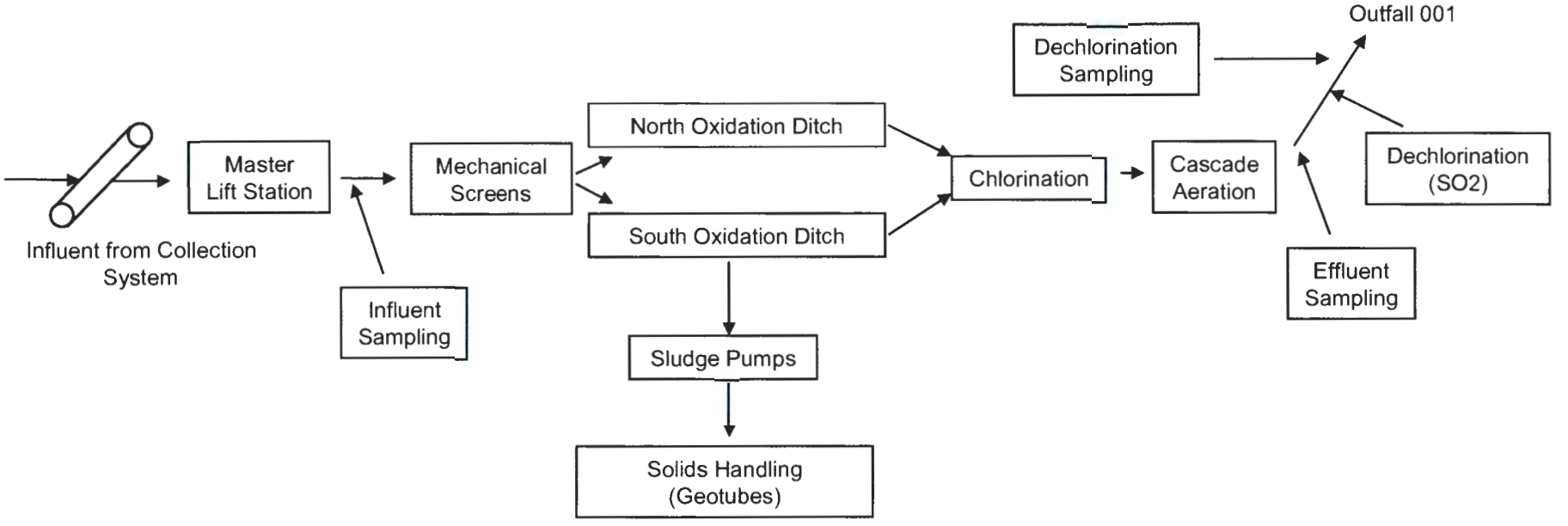
Process Flow Schematic



Utilities Board of the City of Andalusia

Riverside Wastewater Treatment Plant

Process Flow Schematic with Sampling



FACILITY NAME AND PERMIT NUMBER:
Riverside Wastewater Treatment Plant AL0055417

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name: Riverside Wastewater Treatment Plant

Mailing Address: P O Box 790
Andalusia, Alabama 36420

Contact person: Mike Kelley

Title: Operations Manager

Telephone number: (334) 222-8208

Facility Address (not P.O. Box): 21938 Rabren Road
Andalusia, Alabama 36420

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name: Utilities Board of the City of Andalusia

Mailing Address: P O Box 790
Andalusia, Alabama 36420

Contact person: Earl Johnson

Title: Mayor

Telephone number: (334) 222-3312

Is the applicant the owner or operator (or both) of the treatment works?

✓ owner ✓ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

_____ facility ✓ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES	AL0055417	PSD	
UIC		Other	
RCRA		Other	

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Utilities Board of the City of Andalusia	12,000	Separate	City of Andalusia

Total population served 12,000

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes ✓ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes ✓ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 2.84 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	1.34	1.46	1.65	mgd
c. Maximum daily flow rate	4.14	6.12	6.20	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

✓	Separate sanitary sewer	100.00 %
_____	Combined storm and sanitary sewer	_____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ✓ Yes _____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1
ii. Discharges of untreated or partially treated effluent 0
iii. Combined sewer overflow points 0
iv. Constructed emergency overflows (prior to the headworks) 0
v. Other _____ _____

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? _____ Yes ✓ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

c. Does the treatment works land-apply treated wastewater? _____ Yes ✓ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? _____ Yes ✓ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

For each treatment works that receives this discharge, provide the following:

Name: _____

Mailing Address: _____

_____

Contact person: _____

Title: _____

Telephone number: _____

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? _____ Yes ✓ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

_____

Annual daily volume disposed of by this method: _____

Is disposal through this method _____ continuous or _____ intermittent?

Suttles, Draper R

From: Carmen Chosie <Carmen.Chosie@cdge.com>
Sent: Wednesday, June 3, 2020 9:32 AM
To: Suttles, Draper R
Cc: mkelleycity
Subject: AL0055417 - Andalusia Riverside NPDES Permit
Attachments: EPA Form 2A page 5.pdf; EPA Form 2S.pdf; EPA Form 2F.pdf

Draper,

Good morning, and I hope you are well. Based on our phone conversation two weeks ago, please find the following documents attached for the referenced facility:

- Form 2A, page 5
  - The facility's outfall is equipped with a diffuser; per their operator, the discharge pipe was welded shut long ago and holes were cut in the side to create a submerged diffuser
- Form 2S
  - The facility operates geotubes for storage and dewatering of sludge. The amount of sludge hauled off by the third party contractor varies annually (can sometimes even be none), but a log book is kept at the facility detailing when and how many bags of sludge (14-tons each) are hauled off.
- Form 2F
  - Flows previously reported on Outfall 002S DMRs were plant flows on the date of the stormwater sampling – the facility has been informed that this flow data should be from the stormwater outfall site, and a calculation spreadsheet has been shared with the facility for future reporting needs.
  - All five (5) stormwater sites have been listed, and the facility would like to respectfully request that a representative sample continue to be taken from SW 5 (Outfall 2S)

Please let us know if you have any questions, concerns, or require any additional information for the application processing at this time.

Thanks!
Carmen Chosie, P.E.
CDG Engineers and Associates, Inc.
Office: 334-677-9431

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a**, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number 001-1

b. Location
Andalusia (City or town, if applicable) — 36420 (Zip Code)
Covington (County) — Alabama (State)
31° 18' 31" (Latitude) — 86° 31' 56" (Longitude)

c. Distance from shore (if applicable) 20.00 ft.

d. Depth below surface (if applicable) 3.00 ft.

e. Average daily flow rate 1.65 mgd

f. Does this outfall have either an intermittent or a periodic discharge? ____ Yes ✓ No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: ____

Average duration of each discharge: ____

Average flow per discharge: ____ mgd

Months in which discharge occurs: ____

g. Is outfall equipped with a diffuser? ✓ Yes ____ No

A.10. Description of Receiving Waters.

a. Name of receiving water Conecuh River

b. Name of watershed (if known) Escambia

United States Soil Conservation Service 14-digit watershed code (if known): ____

c. Name of State Management/River Basin (if known): Upper Conecuh

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 03140301

d. Critical low flow of receiving stream (if applicable):
acute ____ cfs chronic ____ cfs

e. Total hardness of receiving stream at critical low flow (if applicable): ____ mg/l of $CaCO_3$

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A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

_____ Primary ✓ Secondary

_____ Advanced _____ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal 85.00 %

Design SS removal 85.00 %

Design P removal _____ %

Design N removal _____ %

Other _____ _____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorination

If disinfection is by chlorination, is dechlorination used for this outfall? ✓ Yes _____ No

d. Does the treatment plant have post aeration? _____ Yes ✓ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001-1

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.20	s.u.			
pH (Maximum)	9.90	s.u.			
Flow Rate	6.20	MGD	1.48	MGD	36.00
Temperature (Winter)					
Temperature (Summer)					

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.								
BIOCHEMICAL OXYGEN	BOD-5							
DEMAND (Report one)	CBOD-5	7.60	mg/L	2.17	mg/L	36.00	SM5210B	
FECAL COLIFORM		200.50	col/100mL	46.45	col/100mL	36.00	SM95222D	
TOTAL SUSPENDED SOLIDS (TSS)		22.30	mg/L	6.48	mg/L	36.00	SM2540D	

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

150,000.00 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

The City completed a rehabilitation project in the northern half of the collection system in late 2016. Additionally, the City completed flow monitoring in the southern half of the system and is in design phase for rehabilitation.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

a. The area surrounding the treatment plant, including all unit processes.

b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.

c. Each well where wastewater from the treatment plant is injected underground.

d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.

e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.

f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g, chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ___Yes ✓ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

_____

Telephone Number: _____

Responsibilities of Contractor: _____

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

001-1

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

___Yes ✓ No

c If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

_____

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule MM / DD / YYYY	Actual Completion MM / DD / YYYY
– Begin construction	___/___/_____	___/___/_____
– End construction	___/___/_____	___/___/_____
– Begin discharge	___/___/_____	___/___/_____
– Attain operational level	___/___/_____	___/___/_____

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ___Yes ✓ No

Describe briefly: _____

_____

B.6. EFFLUENT TESTING DATA (GREATER THAN O.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: 001-1

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)	5.43	mg/L	0.14	mg/L	36.00		
CHLORINE (TOTAL RESIDUAL, TRC)	0.53	mg/L	0.12	mg/L	36.00		
DISSOLVED OXYGEN	10.32	mg/L	8.28	mg/L	36.00		
TOTAL KJELDAHL NITROGEN (TKN)	2.44	mg/L	0.96	mg/L	36.00		
NITRATE PLUS NITRITE NITROGEN	21.10	mg/L	14.37	mg/L	36.00		
OIL and GREASE	1.27	mg/L	< 1.0	mg/L	3.00	EPA 1664A	1
PHOSPHORUS (Total)	12.60	mg/L	2.21	mg/L	3.00		
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER	22.30	mg/L (TSS)	6.48	mg/L (TSS)	36.00		

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

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BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

✓ Basic Application Information packet

Supplemental Application Information packet:

✓ Part D (Expanded Effluent Testing Data)

✓ Part E (Toxicity Testing: Biomonitoring Data)

✓ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Earl V. Johnson, Mayor

Signature

Telephone number (334) 222-3312

Date signed 3/13/18

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:
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SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001-1 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY	< 20.0	ug/L			< 20.0	ug/L			3	EPA 200.7	20
ARSENIC	< 22.0	ug/L			< 22.0	ug/L			3	EPA 200.7	22
BERYLLIUM	< 4.0	ug/L			< 4.0	ug/L			3	EPA 200.7	4
CADMIUM	< 5.0	ug/L			< 4.0	ug/L			3	EPA 200.7	4
CHROMIUM	< 10.0	ug/L			< 7.0	ug/L			3	EPA 200.7	7
COPPER	15.4	ug/L			12.4	ug/L			3	EPA 200.7	6
LEAD	< 27.0	ug/L			< 26.0	ug/L			3	EPA 200.7	26
MERCURY	6.82	ng/L			6.01	ng/L			3	EPA 1631	0.25
NICKEL	< 8.0	ug/L			< 8.0	ug/L			3	EPA 200.7	8
SELENIUM	< 26.0	ug/L			< 26.0	ug/L			3	EPA 200.7	26
SILVER	< 8.0	ug/L			< 8.0	ug/L			3	EPA 200.7	8
THALLIUM	< 34.0	ug/L			< 34.0	ug/L			3	EPA 200.7	34
ZINC	117	ug/L			68.8	ug/L			3	EPA 200.7	10
CYANIDE	< 0.005	ug/L			< 0.004	ug/L			3	EPA 335.1	0.004
TOTAL PHENOLIC COMPOUNDS	0.025	ug/L			0.020	ug/L			3	EPA 420.1	0.015
HARDNESS (AS $CaCO_3$)	44.8	mg/L			43.1	mg/L			3	SM 2340-C	3.4
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

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POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN	BMDL	ug/L			BMDL	ug/L			3	EPA 624	22
ACRYLONITRILE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	17.2
BENZENE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.46
BROMOFORM	BMDL	ug/L			BMDL	ug/L			3	EPA 624	2.39
CARBON TETRACHLORIDE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.95
CLOROBENZENE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.4
CHLORODIBROMO-METHANE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.9
CHLOROETHANE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.44
2-CHLORO-ETHYLVINYL ETHER	BMDL	ug/L			BMDL	ug/L			3	EPA 624	3
CHLOROFORM	2.82	ug/L			BMDL	ug/L			3	EPA 624	1.34
DICHLOROBROMO-METHANE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.81
1,1-DICHLOROETHANE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.99
1,2-DICHLOROETHANE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.42
TRANS-1,2-DICHLORO-ETHYLENE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.56
1,1-DICHLOROETHYLENE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.61
1,2-DICHLOROPROPANE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.29
1,3-DICHLORO-PROPYLENE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.94
ETHYLBENZENE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.43
METHYL BROMIDE											
METHYL CHLORIDE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	2.21
METHYLENE CHLORIDE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.51
1,1,2,2-TETRACHLORO-ETHANE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.63
TETRACHLORO-ETHYLENE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.79
TOLUENE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.58

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POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.85
1,1,2-TRICHLOROETHANE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.87
TRICHLORETHYLENE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.81
VINYL CHLORIDE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	1.61
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer.											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	6.39
2-CHLOROPHENOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	5.41
2,4-DICHLOROPHENOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	6.34
2,4-DIMETHYLPHENOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	6.66
4,6-DINITRO-O-CRESOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.12
2,4-DINITROPHENOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	11
2-NITROPHENOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	6.22
4-NITROPHENOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	21.3
PENTACHLOROPHENOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.19
PHENOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	4.61
2,4,6-TRICHLOROPHENOL	BMDL	ug/L			BMDL	ug/L			3	EPA 625	6.98
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	5.7
ACENAPHTHYLENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	6.12
ANTHRACENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.88
BENZIDINE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	7.82
BENZO(A)ANTHRACENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	7.79
BENZO(A)PYRENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.94

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POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.16
BENZO(GHI)PERYLENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	5.64
BENZO(K)FLUORANTHENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	10.9
BIS (2-CHLOROETHOXY) METHANE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.72
BIS (2-CHLOROETHYL)-ETHER	BMDL	ug/L			BMDL	ug/L			3	EPA 625	5.59
BIS (2-CHLOROISO-PROPYL) ETHER	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.54
BIS (2-ETHYLHEXYL) PHTHALATE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.26
4-BROMOPHENYL PHENYL ETHER	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.72
BUTYL BENZYL PHTHALATE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	7.84
2-CHLORONAPHTHALENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.51
4-CHLORPHENYL PHENYL ETHER	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.74
CHRYSENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	6.18
DI-N-BUTYL PHTHALATE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.91
DI-N-OCTYL PHTHALATE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.91
DIBENZO(A,H) ANTHRACENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	5.36
1,2-DICHLOROBENZENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.87
1,3-DICHLOROBENZENE	BMDL	ug/L			BMDL	ug/L			3	EPA 624	2.43
1,4-DICHLOROBENZENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.49
3,3-DICHLOROBENZIDINE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	7.8
DIETHYL PHTHALATE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	7.8
DIMETHYL PHTHALATE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.83
2,4-DINITROTOLUENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.1
2,6-DINITROTOLUENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.54
1,2-DIPHENYLHYDRAZINE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.34

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POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	7.84
FLUORENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.01
HEXACHLOROBENZENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	7.27
HEXACHLOROBUTADIENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.18
HEXACHLOROCYCLO-PENTADIENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.46
HEXACHLOROETHANE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.62
INDENO(1,2,3-CD)PYRENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	4.94
ISOPHORONE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.7
NAPHTHALENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	6.84
NITROBENZENE	BMDL	ug/L			BMDL	ug/L			3	625.00	6.92
N-NITROSODI-N-PROPYLAMINE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	7.28
N-NITROSODI- METHYLAMINE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	4.91
N-NITROSODI-PHENYLAMINE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.15
PHENANTHRENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	8.27
PYRENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	7.8
1,2,4-TRICHLOROBENZENE	BMDL	ug/L			BMDL	ug/L			3	EPA 625	9.94
Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer.											
Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer.											

END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
Riverside Wastewater Treatment Plant AL0055417

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SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

✓ chronic ____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: 1 Test number: 2 Test number: 3

a. Test information.			
Test species & test method number	C. dubia	P. promelas	C. dubia
Age at initiation of test	< 24 hrs	1-2 days	< 24 hrs
Outfall number	001-1	001-1	001-1
Dates sample collected	08/04/2014	08/04/2014	08/17/2015
Date test started	08/05/2014	08/05/2014	08/18/2015
Duration	7 days	7 days	7days
b. Give toxicity test methods followed.			
Manual title	EPA-821-R-02-013	EPA-821-R-02-013	EPA-821-R-02-013
Edition number and year of publication	4th, 2002	4th, 2002	4th, 2002
Page number(s)	141-189	141-189	141-189
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.			
24-Hour composite	Yes	Yes	Yes
Grab	No	No	No
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)			
Before disinfection	No	No	No
After disinfection	No	No	No
After dechlorination	Yes	Yes	Yes

	Test number: 1.00	Test number: 2.00	Test number: 3.00
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:	Final effluent	Final effluent	Final effluent
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity	Yes	Yes	Yes
Acute toxicity	No	No	No
g. Provide the type of test performed.			
Static	No	No	No
Static-renewal	Yes	Yes	Yes
Flow-through	No	No	No
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water	MHRW	MHRW	MHRW
Receiving water	No	No	No
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water	Yes	Yes	Yes
Salt water	No	No	No
j. Give the percentage effluent used for all concentrations in the test series.			
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	Yes	Yes	Yes
Salinity	No	No	No
Temperature	Yes	Yes	Yes
Ammonia	No	No	No
Dissolved oxygen	Yes	Yes	Yes
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)	N/A	N/A	N/A

Chronic:

NOEC	Survival	PASS %	PASS %	PASS %
IC_{25}	Growth	PASS %	PASS %	PASS %
Control percent survival		100.00 %	100.00 %	100.00 %
Other (describe)				

m. Quality Control/Quality Assurance.

Is reference toxicant data available?	Yes	Yes	Yes
Was reference toxicant test within acceptable bounds?	Yes	Yes	Yes
What date was reference toxicant test run (MM/DD/YYYY)?	08/05/2014	08/05/2014	08/04/2015
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

___Yes ✓ No If yes, describe: _____

_____

_____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: N/A (MM/DD/YYYY)

Summary of results: (see instructions)

_____

_____

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

FACILITY NAME AND PERMIT NUMBER:
Riverside Wastewater Treatment Plant AL0055417

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SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

✓ chronic ____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

	Test number: 4	Test number: 5	Test number: 6
a. Test information.			
Test species & test method number	P. promelas	C. dubia	P. promelas
Age at initiation of test	1-2 days	< 24 hrs	1-2 days
Outfall number	001-1	001-1	001-1
Dates sample collected	08/17/2015	08/14/2016	08/14/2016
Date test started	08/18/2015	08/16/2016	08/16/2016
Duration	7 days	7 days	7days
b. Give toxicity test methods followed.			
Manual title	EPA-821-R-02-013	EPA-821-R-02-013	EPA-821-R-02-013
Edition number and year of publication	4th, 2002	4th, 2002	4th, 2002
Page number(s)	141-189	141-189	141-189
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.			
24-Hour composite	Yes	Yes	Yes
Grab	No	No	No
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)			
Before disinfection	No	No	No
After disinfection	No	No	No
After dechlorination	Yes	Yes	Yes

FACILITY NAME AND PERMIT NUMBER: Riverside Wastewater Treatment Plant AL0055417			Form Approved 1/14/99 OMB Number 2040-0086
	Test number: 4.00	Test number: 5.00	Test number: 6.00
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:	Final effluent	Final effluent	Final effluent
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity	Yes	Yes	Yes
Acute toxicity	No	No	No
g. Provide the type of test performed.			
Static	No	No	No
Static-renewal	Yes	Yes	Yes
Flow-through	No	No	No
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water	MHRW	MHRW	MHRW
Receiving water	No	No	No
i. Type of dilution water. It salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water	Yes	Yes	Yes
Salt water	No	No	No
j. Give the percentage effluent used for all concentrations in the test series.			
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	Yes	Yes	Yes
Salinity	No	No	No
Temperature	Yes	Yes	Yes
Ammonia	No	No	No
Dissolved oxygen	Yes	Yes	Yes
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)	N/A	N/A	N/A

FACILITY NAME AND PERMIT NUMBER: Riverside Wastewater Treatment Plant AL0055417				Form Approved 1/14/99 OMB Number 2040-0086
Chronic:				
NOEC	Survival	PASS %	PASS %	PASS %
IC_{25}	Growth	PASS %	PASS %	PASS %
Control percent survival		100.00 %	100.00 %	100.00 %
Other (describe)				

m. Quality Control/Quality Assurance.

Is reference toxicant data available?	Yes	Yes	Yes
Was reference toxicant test within acceptable bounds?	Yes	Yes	Yes
What date was reference toxicant test run (MM/DD/YYYY)?	08/11/2015	08/09/2016	08/09/2016
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

___Yes ✓ No If yes, describe: _____

_____

_____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: N/A (MM/DD/YYYY)

Summary of results: (see instructions)

_____

_____

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

FACILITY NAME AND PERMIT NUMBER:
Riverside Wastewater Treatment Plant AL0055417

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SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

✓ chronic ____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: 7 Test number: 8 Test number: ____

a. Test information.			
Test species & test method number	C. dubia	P. promelas	
Age at initiation of test	< 24 hrs	1-2 days	
Outfall number	001-1	001-1	
Dates sample collected	07/31/2017	07/31/2017	
Date test started	08/01/2017	08/01/2017	
Duration	7 days	7 days	
b. Give toxicity test methods followed.			
Manual title	EPA-821-R-02-013	EPA-821-R-02-013	
Edition number and year of publication	4th, 2002	4th, 2002	
Page number(s)	141-189	141-189	
c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.			
24-Hour composite	Yes	Yes	
Grab	No	No	
d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)			
Before disinfection	No	No	
After disinfection	No	No	
After dechlorination	Yes	Yes	

FACILITY NAME AND PERMIT NUMBER: Riverside Wastewater Treatment Plant AL0055417			*Form Approved 1/14/99 OMB Number 2040-0086*
	Test number: 7.00	Test number: 8.00	Test number:
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:	Final effluent	Final effluent	
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity	Yes	Yes	
Acute toxicity	No	No	
g. Provide the type of test performed.			
Static	No	No	
Static-renewal	Yes	Yes	
Flow-through	No	No	
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water	MHRW	MHRW	
Receiving water	No	No	
i. Type of dilution water. It salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water	Yes	Yes	
Salt water	No	No	
j. Give the percentage effluent used for all concentrations in the test series.			
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	Yes	Yes	
Salinity	No	No	
Temperature	Yes	Yes	
Ammonia	No	No	
Dissolved oxygen	Yes	Yes	
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)	N/A	N/A	

Chronic:				
NOEC	Survival	PASS %	PASS %	PASS %
IC_{25}	Growth	PASS %	PASS %	PASS %
Control percent survival		100.00 %	100.00 %	%
Other (describe)				

m. Quality Control/Quality Assurance.

Is reference toxicant data available?	Yes	Yes	
Was reference toxicant test within acceptable bounds?	Yes	Yes	
What date was reference toxicant test run (MM/DD/YYYY)?	08/01/2017	08/01/2017	
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

___Yes ✓ No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: N/A (MM/DD/YYYY)

Summary of results: (see instructions)

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

✓ Yes ___ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. 1.00

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: Shaw Industries, Inc.

Mailing Address: 200 Waites Drive
Andalusia, Alabama 36420

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

Manufacture of Polypropelyne Yarn

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): Yarn

Raw material(s): Polypropelyne Pellets

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

130,000.00 gpd (✓ continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

10,000.00 gpd (✓ continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits ✓ Yes ___ No

b. Categorical pretreatment standards ___ Yes ✓ No

If subject to categorical pretreatment standards, which category and subcategory?

_____

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

____Yes ✓ No If yes, describe each episode.

_____

_____

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? ____Yes ✓ No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

_____Truck _____Rail _____Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number	Amount	Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

____Yes (complete F.13 through F.15.) ✓ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

_____

_____

_____

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

_____

_____

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

____Yes ____No

If yes, describe the treatment (provide information about the removal efficiency):

_____

_____

b. Is the discharge (or will the discharge be) continuous or intermittent?

____Continuous ____Intermittent If intermittent, describe discharge schedule.

_____

END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
Riverside Wastewater Treatment Plant AL0055417

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SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

a. All CSO discharge points.

b. Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).

c. Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1. or on a separate drawing, of the combined sewer collection system that includes the following information:

a. Locations of major sewer trunk lines, both combined and separate sanitary.

b. Locations of points where separate sanitary sewers feed into the combined sewer system.

c. Locations of in-line and off-line storage structures.

d. Locations of flow-regulating devices.

e. Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3. Description of Outfall.

a. Outfall number _____

b. Location

_____
(City or town, if applicable) (Zip Code)

_____
(County) (State)

_____
(Latitude) (Longitude)

c. Distance from shore (if applicable) _____ ft.

d. Depth below surface (if applicable) _____ ft.

e. Which of the following were monitored during the last year for this CSO?

____Rainfall ____CSO pollutant concentrations ____CSO frequency

____CSO flow volume ____Receiving water quality

f. How many storm events were monitored during the last year? _____

G.4. CSO Events.

a. Give the number of CSO events in the last year.

_____ events (___ actual or ___ approx.)

b. Give the average duration per CSO event.

_____ hours (____ actual or ____ approx.)

c. Give the average volume per CSO event.

_____ million gallons (_____ actual or _____ approx.)

d. Give the minimum rainfall that caused a CSO event in the last year.

_____ inches of rainfall

G.5. Description of Receiving Waters.

a. Name of receiving water: _____

b. Name of watershed/river/stream system: _____

United States Soil Conservation Service 14-digit watershed code (if known): _____

c. Name of State Management/River Basin: _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

G.6. CSO Operations.

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

_____

_____

END OF PART G.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

Suttles, Draper R

From: Carmen Chosie <Carmen.Chosie@cdge.com>
Sent: Wednesday, June 3, 2020 9:32 AM
To: Suttles, Draper R
Cc: mkelleycity
Subject: AL0055417 - Andalusia Riverside NPDES Permit
Attachments: EPA Form 2A page 5.pdf; EPA Form 2S.pdf; EPA Form 2F.pdf

Draper,

Good morning, and I hope you are well. Based on our phone conversation two weeks ago, please find the following documents attached for the referenced facility:

- Form 2A, page 5
  - The facility's outfall is equipped with a diffuser; per their operator, the discharge pipe was welded shut long ago and holes were cut in the side to create a submerged diffuser
- Form 2S
  - The facility operates geotubes for storage and dewatering of sludge. The amount of sludge hauled off by the third party contractor varies annually (can sometimes even be none), but a log book is kept at the facility detailing when and how many bags of sludge (14-tons each) are hauled off.
- Form 2F
  - Flows previously reported on Outfall 002S DMRs were plant flows on the date of the stormwater sampling – the facility has been informed that this flow data should be from the stormwater outfall site, and a calculation spreadsheet has been shared with the facility for future reporting needs.
  - All five (5) stormwater sites have been listed, and the facility would like to respectfully request that a representative sample continue to be taken from SW 5 (Outfall 2S)

Please let us know if you have any questions, concerns, or require any additional information for the application processing at this time.

Thanks!
Carmen Chosie, P.E.
CDG Engineers and Associates, Inc.
Office: 334-677-9431

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
	AL0055417	Riverside WWTP	

Form 2S NPDES | EPA

U.S Environmental Protection Agency
Application for NPDES Permit for Sewage Sludge Management
NEW AND EXISTING TREATMENT WORKS TREATING DOMESTIC SEWAGE

PRELIMINARY INFORMATION

Does your facility currently have an effective NPDES permit or have you been directed by your NPDES permitting authority to submit a full Form 2S permit application?

☑ Yes ➔ Complete Part 2 of application package (begins p. 7). ☐ No ➔ Complete Part 1 of application package (below).

PART 1 — LIMITED BACKGROUND INFORMATION (40 CFR 122.21(c)(2)(ii))

Complete this part only if you are a "sludge-only" facility (i.e., a facility that does not currently have, and is not applying for, an NPDES permit for a direct discharge to a surface body of water).

PART 1, SECTION 1. FACILITY INFORMATION (40 CFR 122.21(c)(2)(ii)(A))

Facility Information

1.1 Facility name

Mailing address (street or P.O. box)

City or town	State	ZIP code

Contact name (first and last)	Title	Phone number	Email address

Location address (street, route number, or other specific identifier) ☐ Same as mailing address

City or town	State	ZIP code

1.2 **Ownership Status**

☐ Public—federal ☐ Public—state ☐ Other public (specify)_____

☐ Private ☐ Other (specify) _____

PART 1, SECTION 2. APPLICANT INFORMATION (40 CFR 122.21(c)(2)(ii)(B))

Applicant Information

2.1 Is applicant different from entity listed under Item 1.1 above?

☐ Yes ☐ No ➔ SKIP to Item 2.3 (Part 1, Section 2).

2.2 Applicant name

Applicant address (street or P.O. box)

City or town	State	ZIP code

Contact name (first and last)	Title	Phone number	Email address

2.3 Is the applicant the facility's owner, operator, or both? (Check only one response.)

☐ Owner ☐ Operator ☐ Both

2.4 To which entity should the NPDES permitting authority send correspondence? (Check only one response.)

☐ Facility ☐ Applicant ☐ Facility and applicant (they are one and the same)

PART 1, SECTION 3. SEWAGE SLUDGE AMOUNT (40 CFR 122.21(c)(2)(ii)(D))

Sewage Sludge Amount

3.1 Provide the total dry metric tons per the latest 365-day period of sewage sludge generated, treated, used, and disposed of:

Practice	Dry Metric Tons per 365-Day Period
Amount generated at the facility	
Amount treated at the facility	
Amount used (i.e., received from off site) at the facility	
Amount disposed of at the facility	

PART 2 — PERMIT APPLICATION INFORMATION (40 CFR 122.21(q))

Complete this part if you have an effective NPDES permit or have been directed by the NPDES permitting authority to submit a full permit application. In other words, complete this part if your facility has, or is applying for, an NPDES permit.
Part 2 is divided into five sections. Section 1 pertains to all applicants. The applicability of Sections 2 to 5 depends on your facility's sewage sludge use or disposal practices. See the instructions to determine which sections you are required to complete.

PART 2, SECTION 1. GENERAL INFORMATION (40 CFR 122.21(q)(1 7) AND (q)(13))

General Information

All Part 2 applicants must complete this section.

Facility Information

1.1	Facility name Riverside Wastewater Treatment Plant			
	Mailing address (street or P.O. box) P O Box 790			
	City or town Andalusia	State Alabama	ZIP code 36420	Phone number (334) 222-8208
	Contact name (first and last) Mike Kelley	Title Operations Manager	Email address mkelleycity@centurytel.net	
	Location address (street, route number, or other specific identifier) 21938 Rabren Road		☐ Same as mailing address	
	City or town Andalusia	State Alabama	ZIP code 36420	
1.2	Is this facility a Class I sludge management facility? ☐ Yes ☑ No			
1.3	**Facility Design Flow Rate**	2.84 million gallons per day (mgd)		
1.4	**Total Population Served**	12,000		
1.5	**Ownership Status** ☑ Public—federal ☐ Public—state ☐ Other public (specify) _____ ☐ Private ☐ Other (specify) _____			

Applicant Information

1.6	Is applicant different from entity listed under Item 1.1 above? ☐ Yes ☑ No → SKIP to Item 1.8 (Part 2, Section 1).			
1.7	Applicant name			
	Applicant mailing address (street or P.O. box)			
	City or town		State	ZIP code
	Contact name (first and last)	Title	Phone number	Email address
1.8	Is the applicant the facility's owner, operator, or both? (Check only one response.) ☐ Operator ☐ Owner ☑ Both			
1.9	To which entity should the NPDES permitting authority send correspondence? (Check only one response.) ☐ Facility ☐ Applicant ☑ Facility and applicant (they are one and the same)			

1.10	Facility's NPDES permit number ☐ Check here if you do not have an NPDES permit but are otherwise required to submit Part 2 of Form 2S.	AL0055417

1.11 Indicate all other federal, state, and local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices below.

☐ RCRA (hazardous wastes)	☐ Nonattainment program (CAA)	☐ NESHAPs (CAA)
☐ PSD (air emissions)	☐ Dredge or fill (CWA Section 404)	☐ Other (specify)
☐ Ocean dumping (MPRSA)	☐ UIC (underground injection of fluids)	

Indian Country

1.12 Does any generation, treatment, storage, application to land, or disposal of sewage sludge from this facility occur in Indian Country?

☐ Yes ☑ No → SKIP to Item 1.14 (Part 2, Section 1) below.

1.13 Provide a description of the generation, treatment, storage, land application, or disposal of sewage sludge that occurs.

Topographic Map

1.14 Have you attached a topographic map containing all required information to this application? (See instructions for specific requirements.)

☑ Yes ☐ No

Line Drawing

1.15 Have you attached a line drawing and/or a narrative description that identifies all sewage sludge practices that will be employed during the term of the permit containing all the required information to this application? (See instructions for specific requirements.) Sludge picked up by a private

☑ Yes entity for use as fertilizer on private land ☐ No

Contractor Information

1.16 Do contractors have any operational or maintenance responsibilities related to sewage sludge generation, treatment, use, or disposal at the facility?

☑ Yes ☐ No → SKIP to Item 1.18 (Part 2, Section 1) below.

1.17 Provide the following information for each contractor.

☐ Check here if you have attached additional sheets to the application package.

	Contractor 1	Contractor 2	Contractor 3
Contractor company name	Michael Jordan		
Mailing address (street or P.O. box)	1113 Loree Lane		
City, state, and ZIP code	Repton, AL 36475		
Contact name (first and last)	Michael Jordan		
Telephone number	(251) 714-3121		
Email address	N/A		

General Information Continued

1.17 cont.		Contractor 1	Contractor 2	Contractor 3
	Responsibilities of contractor	Picks up sludge for use as fertilizer on private property		

Pollutant Concentrations

Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants for which limits in sewage sludge have been established in 40 CFR 503 for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than 4.5 years old.

☐ Check here if you have attached additional sheets to the application package.

1.18

Pollutant	Average Monthly Concentration (mg/kg dry weight)	Analytical Method	Detection Level
Arsenic	< 19.4 mg/kg	EPA 6010C	19.4
Cadmium	< 22.4 mg/kg	EPA 6010C	22.4
Chromium	< 365 mg/kg	EPA 6010C	365
Copper	<1,310 mg/kg	EPA 6010C	1310
Lead	< 264 mg/kg	EPA 6010C	264
Mercury	< 3/8 mg/kg	EPA 7471A	3.8
Molybdenum	< 15.3 mg/kg	EPA 6010C	15.3
Nickel	< 214 mg/kg	EPA 6010C	214
Selenium	< 16.6 mg/kg	EPA 6010C	16.6
Zinc	1770 mg/kg	EPA 6010C	1120

Checklist and Certification Statement

1.19 In Column 1 below, mark the sections of Form 2S, Part 2, that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing. Note that not all applicants are required to complete all sections or provide attachments. See Exhibit 2S–2 in the Instructions.

Column 1	Column 2
☐ Section 1 (General Information)	☐ w/ attachments
☑ Section 2 (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)	☑ w/ attachments
☑ Section 3 (Land Application of Bulk Sewage Sludge)	☑ w/ attachments
☐ Section 4 (Surface Disposal)	☐ w/ attachments
☐ Section 5 (Incineration)	☐ w/ attachments

1.20 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
Earl Johnson	Mayor
Signature	Date signed 6-2-20
Telephone number (334) 222-3312	[redacted]

Upon the request of the NPDES permitting authority, you must submit any other information the authority deems necessary to assess sewage sludge use or disposal practices at your facility and identify appropriate permitting requirements.

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PART 2, SECTION 2. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE (40 CFR 122.21(q)(8) THROUGH (12))

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge

2.1 Does your facility generate sewage sludge or derive a material from sewage sludge?

☑ Yes ☐ No ➔ SKIP to Part 2, Section 3.

Amount Generated Onsite

2.2	Total dry metric tons per 365-day period generated at your facility:	2,016

Amount Received from Off Site Facility

2.3 Does your facility receive sewage sludge from another facility for treatment use or disposal?

☐ Yes ☑ No ➔ SKIP to Item 2.7 (Part 2, Section 2) below.

2.4	Indicate the total number of facilities from which you receive sewage sludge for treatment, use, or disposal:	

Provide the following information for each of the facilities from which you receive sewage sludge.

☐ Check here if you have attached additional sheets to the application package.

2.5

Name of facility			
Mailing address (street or P.O. box)			
City or town		State	ZIP code
Contact name (first and last)	Title	Phone number	Email address
Location address (street, route number, or other specific identifier)			☐ Same as mailing address
City or town		State	ZIP code
County		County code	☐ Not available

2.6 Indicate the amount of sewage sludge received, the applicable pathogen class and reduction alternative, and the applicable vector reduction option provided at the offsite facility.

Amount (dry metric tons)	Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
	☐ Not applicable ☐ Class A, Alternative 1 ☐ Class A, Alternative 2 ☐ Class A, Alternative 3 ☐ Class A, Alternative 4 ☐ Class A, Alternative 5 ☐ Class A, Alternative 6 ☐ Class B, Alternative 1 ☐ Class B, Alternative 2 ☐ Class B, Alternative 3 ☐ Class B, Alternative 4 ☐ Domestic septage, pH adjustment	☐ Not applicable ☐ Option 1 ☐ Option 2 ☐ Option 3 ☐ Option 4 ☐ Option 5 ☐ Option 6 ☐ Option 7 ☐ Option 8 ☐ Option 9 ☐ Option 10 ☐ Option 11

2.7 Identify the treatment process(es) that are known to occur at the offsite facility, including blending activities and treatment to reduce pathogens or vector attraction properties. (Check all that apply.)

☐ Preliminary operations (e.g., sludge grinding and degritting)	☐ Thickening (concentration)
☐ Stabilization	☐ Anaerobic digestion
☐ Composting	☐ Conditioning
☐ Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)	☑ Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)
☐ Heat drying	☐ Thermal reduction
☐ Methane or biogas capture and recovery	☐ Other (specify) _____

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

Treatment Provided at Your Facility

2.8 For each sewage sludge use or disposal practice, indicate the applicable pathogen class and reduction alternative and the applicable vector attraction reduction option provided at your facility. Attach additional pages, as necessary.

Use or Disposal Practice (check one)	Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
☐ Land application of bulk sewage	☐ Not applicable	☑ Not applicable
☑ Land application of biosolids (bulk)	☐ Class A, Alternative 1	☐ Option 1
☐ Land application of biosolids (bags)	☐ Class A, Alternative 2	☐ Option 2
☐ Surface disposal in a landfill	☐ Class A, Alternative 3	☐ Option 3
☐ Other surface disposal	☐ Class A, Alternative 4	☐ Option 4
☐ Incineration	☐ Class A, Alternative 5	☐ Option 5
	☐ Class A, Alternative 6	☐ Option 6
	☐ Class B, Alternative 1	☐ Option 7
	☑ Class B, Alternative 2	☐ Option 8
	☐ Class B, Alternative 3	☐ Option 9
	☐ Class B, Alternative 4	☐ Option 10
	☐ Domestic septage, pH adjustment	☐ Option 11

2.9 Identify the treatment process(es) used at your facility to reduce pathogens in sewage sludge or reduce the vector attraction properties of sewage sludge? (Check all that apply.)

- ☐ Preliminary operations (e.g., sludge grinding and degritting)
- ☐ Thickening (concentration)
- ☐ Stabilization
- ☐ Anaerobic digestion
- ☐ Composting
- ☐ Conditioning
- ☐ Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)
- ☑ Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)
- ☐ Heat drying
- ☐ Thermal reduction
- ☐ Methane or biogas capture and recovery

2.10 Describe any other sewage sludge treatment or blending activities not identified in Items 2.8 and 2.9 (Part 2, Section 2) above.

☐ Check here if you have attached the description to the application package.

Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements, and One of Vector Attraction Reduction Options 1 to 8

2.11 Does the sewage sludge from your facility meet the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of 40 CFR 503.13, Class A pathogen reduction requirements at 40 CFR 503.32(a), *and* one of the vector attraction reduction requirements at 40 CFR 503.33(b)(1)–(8) and is it land applied?

☐ Yes ☑ No ➔ SKIP to Item 2.14 (Part 2, Section 2) below.

2.12 Total dry metric tons per 365-day period of sewage sludge subject to this subsection that is applied to the land:

2.13 Is sewage sludge subject to this subsection placed in bags or other containers for sale or give-away for application to the land?

☐ Yes ☐ No

☑ Check here once you have completed Items 2.11 to 2.13, then ➔ SKIP to Item 2.32 (Part 2, Section 2) below.

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Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

Sale or Give-Away in a Bag or Other Container for Application to the Land

2.14	Do you place sewage sludge in a bag or other container for sale or give-away for land application? ☑ Yes ☐ No ➔ SKIP to Item 2.17 (Part 2, Section 2) below.	
2.15	Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land:	Varies
2.16	Attach a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land. ☐ Check here to indicate that you have attached all labels or notices to this application package.	

☑ Check here once you have completed Items 2.14 to 2.16, then ➔ SKIP to Part 2, Section 2, Item 2.32.

Shipment Off Site for Treatment or Blending

2.17	Does another facility provide treatment or blending of your facility's sewage sludge? (This question does not pertain to dewatered sludge sent directly to a land application or surface disposal site.) ☐ Yes ☐ No ➔ SKIP to Item 2.32 (Part 2, Section 2) below.	
2.18	Indicate the total number of facilities that provide treatment or blending of your facility's sewage sludge. Provide the information in Items 2.19 to 2.26 (Part 2, Section 2) below for each facility. ☐ Check here if you have attached additional sheets to the application package.	

2.19	Name of receiving facility			
	Mailing address (street or P.O. box)			
	City or town		State	ZIP code
	Contact name (first and last)	Title	Phone number	Email address
	Location address (street, route number, or other specific identifier)			☐ Same as mailing address
	City or town		State	ZIP code
2.20	Total dry metric tons per 365-day period of sewage sludge provided to receiving facility:			
2.21	Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility or reduce the vector attraction properties of sewage sludge from your facility? ☐ Yes ☐ No ➔ SKIP to Item 2.24 (Part 2, Section 2) below.			

2.22 Indicate the pathogen class and reduction alternative and the vector attraction reduction option met for the sewage sludge at the receiving facility.

Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
☐ Not applicable	☐ Not applicable
☐ Class A, Alternative 1	☐ Option 1
☐ Class A, Alternative 2	☐ Option 2
☐ Class A, Alternative 3	☐ Option 3
☐ Class A, Alternative 4	☐ Option 4
☐ Class A, Alternative 5	☐ Option 5
☐ Class A, Alternative 6	☐ Option 6
☐ Class B, Alternative 1	☐ Option 7
☐ Class B, Alternative 2	☐ Option 8
☐ Class B, Alternative 3	☐ Option 9
☐ Class B, Alternative 4	☐ Option 10
☐ Domestic septage, pH adjustment	☐ Option 11

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

2.23 Which treatment process(es) are used at the receiving facility to reduce pathogens in sewage sludge or reduce the vector attraction properties of sewage sludge from your facility? (Check all that apply.)

- ☐ Preliminary operations (e.g., sludge grinding and degritting)
- ☐ Thickening (concentration)
- ☐ Stabilization
- ☐ Anaerobic digestion
- ☐ Composting
- ☐ Conditioning
- ☐ Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)
- ☐ Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)
- ☐ Heat drying
- ☐ Thermal reduction
- ☐ Methane or biogas capture and recovery
- ☐ Other (specify) _____

2.24 Attach a copy of any information you provide the receiving facility to comply with the "notice and necessary information" requirement of 40 CFR 503.12(g).

☐ Check here to indicate that you have attached material.

2.25 Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land?

☐ Yes ☐ No ➔ SKIP to Item 2.32 (Part 2, Section 2) below.

2.26 Attach a copy of all labels or notices that accompany the product being sold or given away.

☐ Check here to indicate that you have attached material.

☐ Check here once you have completed Items 2.17 to 2.26 (Part 2, Section 2), then ➔ SKIP to Item 2.32 (Part 2, Section 2) below.

Land Application of Bulk Sewage Sludge

2.27 Is sewage sludge from your facility applied to the land?

☐ Yes ☐ No ➔ SKIP to Item 2.32 (Part 2, Section 2) below.

2.28 Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: _____

2.29 Did you identify all land application sites in Part 2, Section 3 of this application?

☐ Yes ☐ No ➔ Submit a copy of the land application plan with your application.

2.30 Are any land application sites located in states other than the state where you generate sewage sludge or derive a material from sewage sludge?

☐ Yes ☐ No ➔ SKIP to Item 2.32 (Part 2, Section 2) below.

2.31 Describe how you notify the NPDES permitting authority for the states where the land application sites are located. Attach a copy of the notification.

☐ Check here if you have attached the explanation to the application package.

☐ Check here if you have attached the notification to the application package.

Surface Disposal

2.32 Is sewage sludge from your facility placed on a surface disposal site?

☐ Yes ☑ No ➔ SKIP to Item 2.39 (Part 2, Section 2) below.

2.33 Total dry metric tons of sewage sludge from your facility placed on all surface disposal sites per 365-day period: _____

2.34 Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?

☐ Yes ➔ SKIP to Item 2.39 (Part 2, Section 2) below. ☐ No

2.35 Indicate the total number of surface disposal sites to which you send your sewage sludge. _____

(Provide the information in Items 2.36 to 2.38 of Part 2, Section 2, for each facility.)

☐ Check here if you have attached additional sheets to the application package.

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

2.36	Site name or number of surface disposal site you do not own or operate			
	Mailing address (street or P.O. box)			
	City or Town		State	ZIP Code
	Contact Name (first and last)	Title	Phone Number	Email Address
2.37	Site Contact (Check all that apply.) ☐ Owner ☐ Operator			
2.38	Total dry metric tons of sewage sludge from your facility placed on this surface disposal site per 365-day period:			

Incineration

2.39	Is sewage sludge from your facility fired in a sewage sludge incinerator? ☐ Yes ☑ No ➔ SKIP to Item 2.46 (Part 2, Section 2) below.			
2.40	Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period:			
2.41	Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? ☐ Yes ➔ SKIP to Item 2.46 (Part 2, Section 2) below. ☐ No			
2.42	Indicate the total number of sewage sludge incinerators used that you do not own or operate. (Provide the information in Items 2.43 to 2.45 directly below for each facility.) ☐ Check here if you have attached additional sheets to the application package.			
2.43	Incinerator name or number			
	Mailing address (street or P.O. box)			
	City or town		State	ZIP code
	Contact name (first and last)	Title	Phone number	Email address
	Location address (street, route number, or other specific identifier) ☐ Same as mailing address			
	City or town		State	ZIP code
2.44	Contact (check all that apply) ☐ Incinerator owner ☐ Incinerator operator			
2.45	Total dry metric tons of sewage sludge from your facility fired in this sewage sludge incinerator per 365-day period:			

Disposal in a Municipal Solid Waste Landfill

2.46	Is sewage sludge from your facility placed on a municipal solid waste landfill? ☐ Yes ☑ No ➔ SKIP to Part 2, Section 3.	
2.47	Indicate the total number of municipal solid waste landfills used. (Provide the information in Items 2.48 to 2.52 directly below for each facility.) ☐ Check here if you have attached additional sheets to the application package.	

Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge Continued

2.48 Name of landfill

Mailing address (street or P.O. box)

City or town		State	ZIP code
Contact name (first and last)	Title	Phone number	Email address

Location address (street, route number, or other specific identifier) ☐ Same as mailing address

County	County code ☐ Not available	
City or town	State	ZIP code

2.49 Total dry metric tons of sewage sludge from your facility placed in this municipal solid waste landfill per 365-day period:

2.50 List the numbers of all other federal, state, and local permits that regulate the operation of this municipal solid waste landfill.

Permit Number	Type of Permit

2.51 Attach to the application information to determine whether the sewage sludge meets applicable requirements for disposal of sewage sludge in a municipal solid waste landfill (e.g., results of paint filter liquids test and TCLP test).

☐ Check here to indicate you have attached the requested information.

2.52 Does the municipal solid waste landfill comply with applicable criteria set forth in 40 CFR 258?

☐ Yes ☐ No

PART 2, SECTION 3 LAND APPLICATION OF BULK SEWAGE SLUDGE (40 CFR 122.21(q)(9))

Land Application of Bulk Sewage Sludge

3.1 Does your facility apply sewage sludge to land?

☐ Yes ☑ No ➔ SKIP to Part 2, Section 4.

3.2 Do any of the following conditions apply?

- The sewage sludge meets the ceiling concentrations in Table 1 of 40 CFR 503.12, the pollutant concentrations in Table 3 of 40 CFR 503.13, Class A pathogen reduction requirements at 40 CFR 503.32(a), *and* one of the vector attraction reduction requirements at 40 CFR 503.33(b)(1)–(8);
- The sewage sludge is sold or given away in a bag or other container for application to the land; or
- You provide the sewage sludge to another facility for treatment or blending.

☐ Yes ➔ SKIP to Part 2, Section 4. ☐ No

3.3 Complete Section 3 for every site on which the sewage sludge is applied.

☐ Check here if you have attached sheets to the application package for one or more land application sites.

Identification of Land Application Site

3.4 Site name or number

Location address (street, route number, or other specific identifier) ☐ Same as mailing address

County	County code ☐ Not available

City or town	State	ZIP code

Latitude/Longitude of Land Application Site (see instructions)

Latitude	Longitude
° ′ ″	° ′ ″

Method of Determination

☐ USGS map ☐ Field survey ☐ Other (specify) _____

3.5 Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

☐ Check here to indicate you have attached a topographic map for this site.

Owner Information

3.6 Are you the owner of this land application site?

☐ Yes ➔ SKIP to Item 3.8 (Part 2, Section 3) below. ☐ No

3.7 Owner name

Mailing address (street or P.O. box)

City or town	State	ZIP code

Contact name (first and last)	Title	Phone number	Email address

Applier Information

3.8 Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?

☐ Yes ➔ SKIP to Item 3.10 (Part 2, Section 3) below. ☐ No

3.9 Applier's name

Mailing address (street or P.O. box)

City or town	State	ZIP code

Contact name (first and last)	Title	Phone number	Email address

Land Application of Bulk Sewage Sludge Continued

Site Type

3.10 Type of land application:

☐ Agricultural land ☐ Forest

☐ Reclamation site ☐ Public contact site

☐ Other (describe)

Crop or Other Vegetation Grown on Site

3.11 What type of crop or other vegetation is grown on this site?

3.12 What is the nitrogen requirement for this crop or vegetation?

Vector Attraction Reduction

3.13 Are the vector attraction reduction requirements at 40 CFR 503.33(b)(9) and (b)(10) met when sewage sludge is applied to the land application site?

☐ Yes ☐ No ➔ SKIP to Item 3.16 (Part 2, Section 3) below.

3.14 Indicate which vector attraction reduction option is met. (Check only one response.)

☐ Option 9 (injection below land surface) ☐ Option 10 (incorporation into soil within 6 hours)

3.15 Describe any treatment processes used at the land application site to reduce vector attraction properties of sewage sludge.

☐ Check here if you have attached your description to the application package.

Cumulative Loadings and Remaining Allotments

3.16 Is the sewage sludge applied to this site since July 20, 1993, subject to the cumulative pollutant loading rates (CPLRs) in 40 CFR 503.13(b)(2)?

☐ Yes ☐ No ➔ SKIP to Part 2, Section 4.

3.17 Have you contacted the NPDES permitting authority in the state where the bulk sewage sludge subject to CPLRs will be applied to ascertain whether bulk sewage sludge subject to CPLRs has been applied to this site on or since July 20, 1993?

☐ Yes ☐ No ➔ Sewage sludge subject to CPLRs may not be applied to this site. SKIP to Part 2, Section 4.

3.18 Provide the following information about your NPDES permitting authority:

NPDES permitting authority name	
Contact person	
Telephone number	
Email address	

3.19 Based on your inquiry, has bulk sewage sludge subject to CPLRs been applied to this site since July 20, 1993?

☐ Yes ☐ No ➔ SKIP to Part 2, Section 4.

3.20 Provide the following information for every facility other than yours that is sending, or has sent, bulk sewage sludge subject to CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

☐ Check here to indicate that additional pages are attached.

Facility name			
Mailing address (street or P.O. box)			
City or town		State	ZIP code
Contact name (first and last)	Title	Phone number	Email address

PART 2, SECTION 4 SURFACE DISPOSAL (40 CFR 122.21(q)(10))

Surface Disposal

4.1 Do you own or operate a surface disposal site?

☐ Yes ☑ No ➔ SKIP to Part 2, Section 5.

4.2 Complete all items in Section 4 for each active sewage sludge unit that you own or operate.

☐ Check here to indicate that you have attached material to the application package for one or more active sewage sludge units.

Information on Active Sewage Sludge Units

4.3

Unit name or number			
Mailing address (street or P.O. box)			
City or town		State	ZIP code
Contact name (first and last)	Title	Phone number	Email address
Location address (street, route number, or other specific identifier)		☐ Same as mailing address	
County		County code ☐ Not available	
City or town		State	ZIP code

Latitude/Longitude of Active Sewage Sludge Unit (see instructions)

Latitude	Longitude
° ′ ″	° ′ ″

Method of Determination

☐ USGS map ☐ Field survey ☐ Other (specify) _____

4.4 Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

☐ Check here to indicate that you have completed and attached a topographic map.

4.5	Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period:	
4.6	Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit:	

4.7 Does the active sewage sludge unit have a liner with a maximum permeability of 1×10^{-7} centimeters per second (cm/sec)?

☐ Yes ☐ No ➔ SKIP to Item 4.9 (Part 2, Section 4) below.

4.8 Describe the liner.

☐ Check here to indicate that you have attached a description to the application package.

4.9 Does the active sewage sludge unit have a leachate collection system?

☐ Yes ☐ No ➔ SKIP to Item 4.11 (Part 2, Section 4) below.

4.10 Describe the leachate collection system and the method used for leachate disposal and provide the numbers of any federal, state, or local permit(s) for leachate disposal.

☐ Check here to indicate that you have attached the description to the application package.

Surface Disposal Continued

4.11	Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? ☐ Yes ☐ No ➔ SKIP to Item 4.13 (Part 2, Section 4) below.	
4.12	Provide the actual distance in meters:	meters
4.13	Remaining capacity of active sewage sludge unit in dry metric tons:	dry metric tons
4.14	Anticipated closure date for active sewage sludge unit, if known (MM/DD/YYYY):	
4.15	Attach a copy of any closure plan that has been developed for this active sewage sludge unit. ☐ Check here to indicate that you have attached a copy of the closure plan to the application package.	

Sewage Sludge from Other Facilities

4.16	Is sewage sludge sent to this active sewage sludge unit from any facilities other than your facility? ☐ Yes ☐ No ➔ SKIP to Item 4.21 (Part 2, Section 4) below.	
4.17	Indicate the total number of facilities (other than your facility) that send sewage sludge to this active sewage sludge unit. (Complete Items 4.18 to 4.20 directly below for each such facility.) ☐ Check here to indicate that you have attached responses for each facility to the application package.	

4.18

Facility name			
Mailing address (street or P.O. box)			
City or town		State	ZIP code
Contact name (first and last)	Title	Phone number	Email address

4.19 Indicate the pathogen class and reduction alternative and the vector attraction reduction option met for the sewage sludge before leaving the other facility.

Pathogen Class and Reduction Alternative	Vector Attraction Reduction Option
☐ Not applicable	☐ Not applicable
☐ Class A, Alternative 1	☐ Option 1
☐ Class A, Alternative 2	☐ Option 2
☐ Class A, Alternative 3	☐ Option 3
☐ Class A, Alternative 4	☐ Option 4
☐ Class A, Alternative 5	☐ Option 5
☐ Class A, Alternative 6	☐ Option 6
☐ Class B, Alternative 1	☐ Option 7
☐ Class B, Alternative 2	☐ Option 8
☐ Class B, Alternative 3	☐ Option 9
☐ Class B, Alternative 4	☐ Option 10
☐ Domestic septage, pH adjustment	☐ Option 11

4.20 Which treatment process(es) are used at the other facility to reduce pathogens in sewage sludge or reduce the vector attraction properties of sewage sludge before leaving the other facility? (Check all that apply.)

☐ Preliminary operations (e.g., sludge grinding and degritting)	☐ Thickening (concentration)
☐ Stabilization	☐ Anaerobic digestion
☐ Composting	☐ Conditioning
☐ Disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization)	☐ Dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons)
☐ Heat drying	☐ Thermal reduction
☐ Methane or biogas capture and recovery	☐ Other (specify) _____

Surface Disposal Continued

Vector Attraction Reduction

4.21 Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?

☐ Option 9 (Injection below and surface)

☐ Option 10 (Incorporation into soil within 6 hours)

☐ Option 11 (Covering active sewage sludge unit daily)

☐ None

4.22 Describe any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge.

☐ Check here if you have attached your description to the application package.

Groundwater Monitoring

4.23 Is groundwater monitoring currently conducted at this active sewage sludge unit, or are groundwater monitoring data otherwise available for this active sewage sludge unit?

☐ Yes

☐ No → SKIP to Item 4.26 (Part 2, Section 4) below.

4.24 Provide a copy of available groundwater monitoring data.

☐ Check here to indicate you have attached the monitoring data.

4.25 Describe the well locations, the approximate depth to groundwater, and the groundwater monitoring procedures used to obtain these data.

☐ Check here if you have attached your description to the application package.

4.26 Has a groundwater monitoring program been prepared for this active sewage sludge unit?

☐ Yes

☐ No → SKIP to Item 4.28 (Part 2, Section 4) below.

4.27 Submit a copy of the groundwater monitoring program with this permit application.

☐ Check here to indicate you have attached the monitoring program.

4.28 Have you obtained a certification from a qualified groundwater scientist that the aquifer below the active sewage sludge unit has not been contaminated?

☐ Yes

☐ No → SKIP to Item 4.30 (Part 2, Section 4) below.

4.29 Submit a copy of the certification with this permit application.

☐ Check here to indicate you have attached the certification to the application package.

Site-Specific Limits

4.30 Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?

☐ Yes

☐ No → SKIP to Part 2, Section 5.

4.31 Submit information to support the request for site-specific pollutant limits with this application.

☐ Check here to indicate you have attached the requested information.

PART 2, SECTION 5 INCINERATION (40 CFR 122.21(q)(11))

Incineration

Incinerator Information

5.1 Do you fire sewage sludge in a sewage sludge incinerator?

☐ Yes ☑ No ➔ SKIP to END.

5.2 Indicate the total number of incinerators used at your facility. (Complete the remainder of Section 5 for each such incinerator.)

☐ Check here to indicate that you have attached information for one or more incinerators.

5.3 Incinerator name or number

Location address (street, route number, or other specific identifier)

County	County code ☐ Not available	
City or town	State	ZIP code

Latitude/Longitude of Incinerator (see instructions)

Latitude	Longitude
° ' "	° ' "

Method of Determination

☐ USGS map ☐ Field survey ☐ Other (specify) _____

Amount Fired

5.4 Dry metric tons per 365-day period of sewage sludge fired in the sewage sludge incinerator:

Beryllium NESHAP

5.5 Submit information, test data, and a description of measures taken that demonstrate whether the sewage sludge incinerated is beryllium-containing waste and will continue to remain as such.

☐ Check here to indicate that you have attached this material to the application package.

5.6 Is the sewage sludge fired in this incinerator "beryllium-containing waste" as defined at 40 CFR 61.31?

☐ Yes ☐ No ➔ SKIP to Item 5.8 (Part 2, Section 5) below.

5.7 Submit with this application a complete report of the latest beryllium emission rate testing *and* documentation of ongoing incinerator operating parameters indicating that the NESHAP emission rate limit for beryllium has been and will continue to be met.

☐ Check here to indicate that you have attached this information.

Mercury NESHAP

5.8 Is compliance with the mercury NESHAP being demonstrated via stack testing?

☐ Yes ☐ No ➔ SKIP to Item 5.11 (Part 2, Section 5) below.

5.9 Submit a complete report of stack testing and documentation of ongoing incinerator operating parameters indicating that the incinerator has met and will continue to meet the mercury NESHAP emission rate limit.

☐ Check here to indicate that you have attached this information.

5.10 Provide copies of mercury emission rate tests for the two most recent years in which testing was conducted.

☐ Check here to indicate that you have attached this information.

5.11 Do you demonstrate compliance with the mercury NESHAP by sewage sludge sampling?

☐ Yes ☐ No ➔ SKIP to Item 5.13 (Part 2, Section 5) below.

5.12 Submit a complete report of sewage sludge sampling and documentation of ongoing incinerator operating parameters indicating that the incinerator has met and will continue to meet the mercury NESHAP emission rate limit.

☐ Check here to indicate that you have attached this information.

Incineration Continued

Dispersion Factor

5.13	Dispersion factor in micrograms/cubic meter per gram/second:	
5.14	Name and type of dispersion model:	
5.15	Submit a copy of the modeling results and supporting documentation. ☐ Check here to indicate that you have attached this information.	

Control Efficiency

5.16 Provide the control efficiency, in hundredths, for each of the pollutants listed below.

Pollutant	Control Efficiency, in Hundredths
Arsenic	
Cadmium	
Chromium	
Lead	
Nickel	

5.17	Attach a copy of the results or performance testing and supporting documentation (including testing dates). ☐ Check here to indicate that you have attached this information.	

Risk-Specific Concentration for Chromium

5.18	Provide the risk-specific concentration (RSC) used for chromium in micrograms per cubic meter:	
5.19	Was the RSC determined via Table 2 in 40 CFR 503.43? ☐ Yes ☐ No → SKIP to Item 5.21 (Part 2, Section 5) below.	
5.20	Identify the type of incinerator used as the basis. ☐ Fluidized bed with wet scrubber ☐ Other types with wet scrubber ☐ Fluidized bed with wet scrubber and wet electrostatic precipitator ☐ Other types with wet scrubber and wet electrostatic precipitator	
5.21	Was the RSC determined via Table 6 in 40 CFR 503.43 (site-specific determination)? ☐ Yes ☐ No → SKIP to Item 5.23 (Part 2, Section 5) below.	
5.22	Provide the decimal fraction of hexavalent chromium concentration to total chromium concentration in stack exit gas:	
5.23	Attach the results of incinerator stack tests for hexavalent and total chromium concentrations, including the date(s) of any test(s), with this application. ☐ Check here to indicate that you have attached this information. ☐ Not applicable	

Incinerator Parameters

5.24	Do you monitor total hydrocarbons (THC) in the exit gas of the sewage sludge incinerator? ☐ Yes ☐ No	
5.25	Do you monitor carbon monoxide (CO) in the exit gas of the sewage sludge incinerator? ☐ Yes ☐ No	
5.26	Indicate the type of sewage sludge incinerator:	
5.27	Incinerator stack height in meters:	
5.28	Indicate whether the value submitted in Item 5.27 is (check only one response): ☐ Actual stack height ☐ Creditable stack height	

Incineration Continued

Performance Test Operating Parameters

5.29	Maximum performance test combustion temperature:	
5.30	Performance test sewage sludge feed rate, in dry metric tons/day	

5.31 Indicate whether value submitted in Item 5.30 is (check only one response):

☐ Average use ☐ Maximum design

5.32 Attach supporting documents describing how the feed rate was calculated.

☐ Check here to indicate that you have attached this information.

5.33 Submit information documenting the performance test operating parameters for the air pollution control device(s) used for this sewage sludge incinerator.

☐ Check here to indicate that you have attached this information.

Monitoring Equipment

5.34 List the equipment in place to monitor the listed parameters.

Parameter	Equipment in Place for Monitoring
Total hydrocarbons or carbon monoxide	
Percent oxygen	
Percent moisture	
Combustion temperature	
Other (describe)	

Air Pollution Control Equipment

5.35 List all air pollution control equipment used with this sewage sludge incinerator.

☐ Check here if you have attached the list to the application package for the noted incinerator.

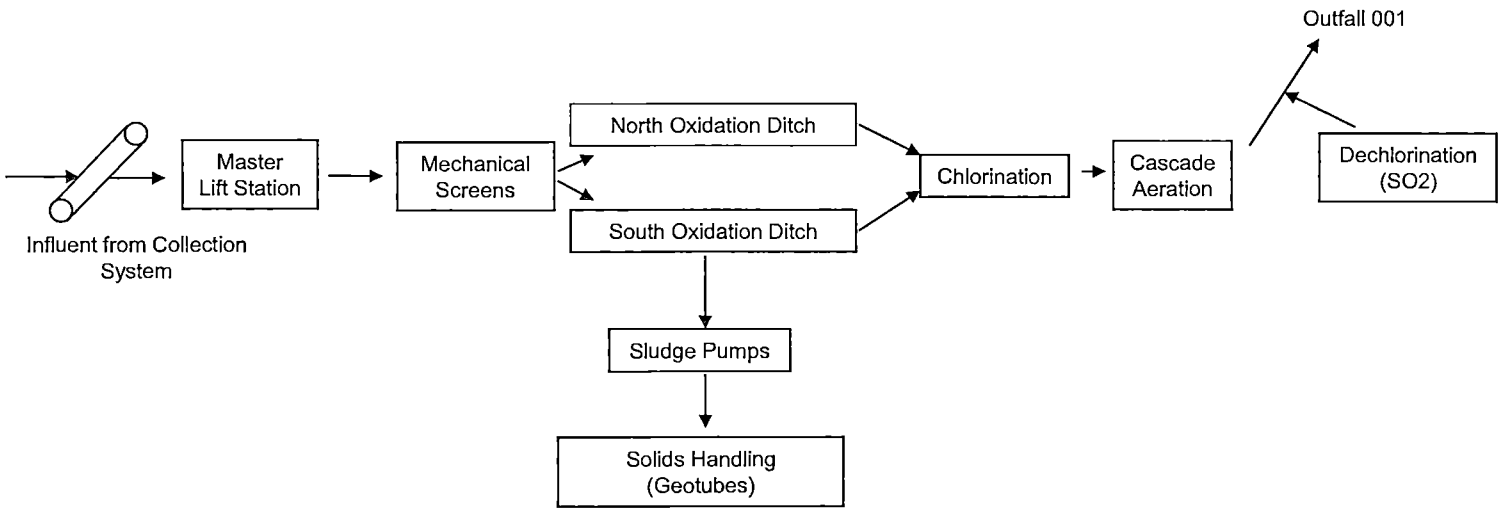
END of PART 2

Submit completed application package to your NPDES permitting authority.

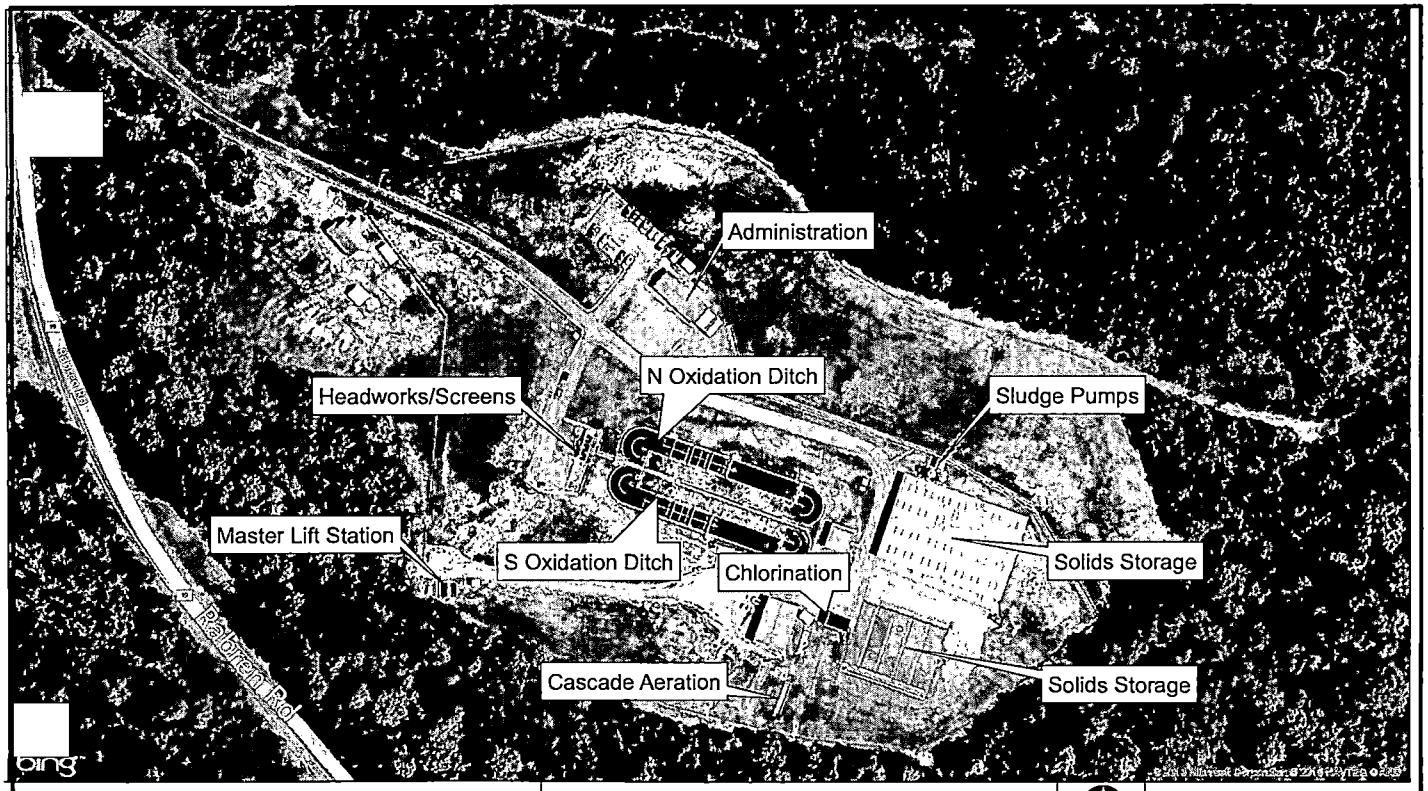
Utilities Board of the City of Andalusia

Riverside Wastewater Treatment Plant

Process Flow Schematic



Revised February 2018



Utilities Board of the City of Andalusia

Riverside WWTP Site Map

Andalusia, AL

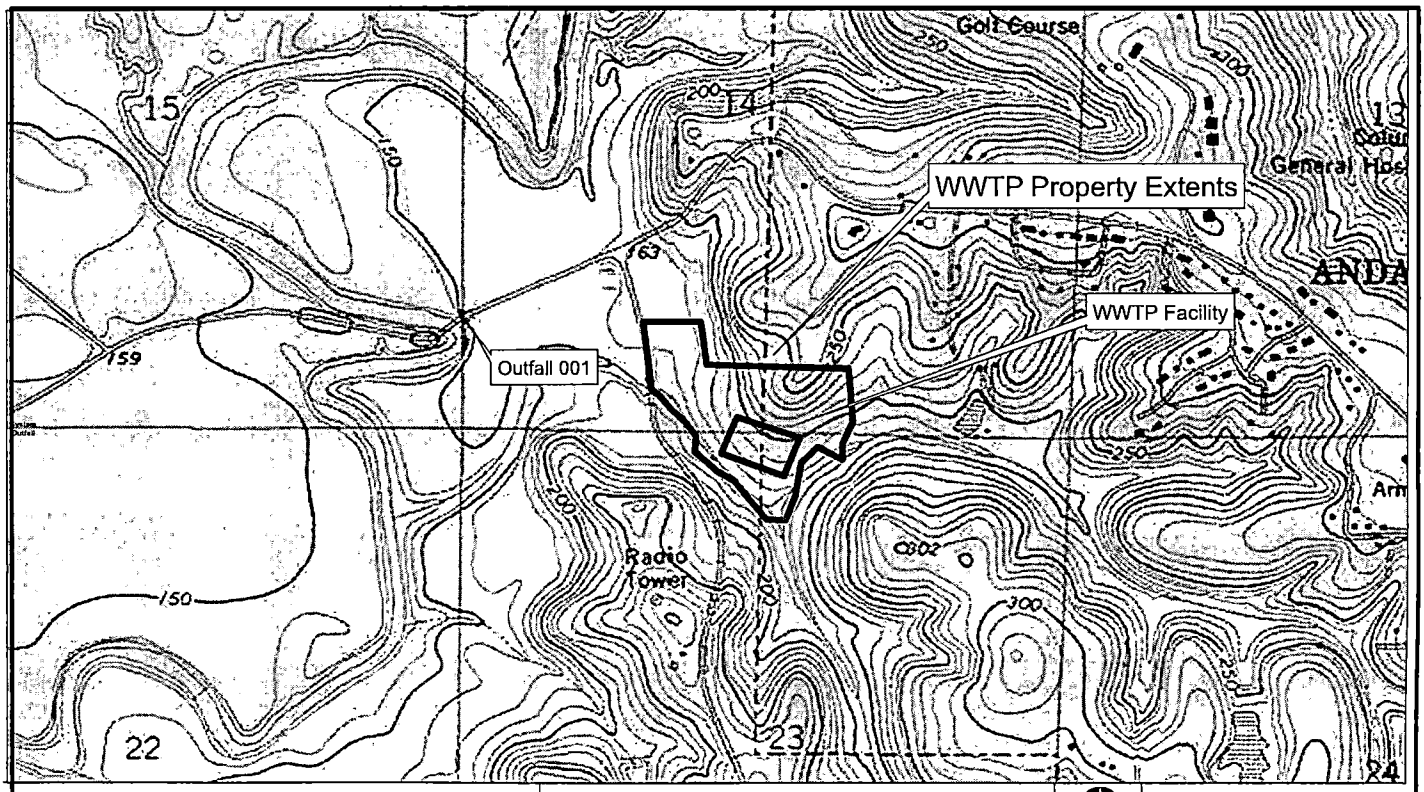
1840 E. Three Notch St.
Andalusia, AL 36420
(334) 222-9431
(334) 222-4018 FAX
www.cdge.com

Sheet No. 1

Drawn By: CDC

Checked by: CDC

Date: February 2018



Utilities Board of the City of Andalusia

Riverside WWTP Site Map

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1640 E. Three Notch St.
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(334) 222-9431
(334) 222-4018 FAX
www.cdge.com

Sheet No. 1

Drawn By: CDC

Checked by: CDC

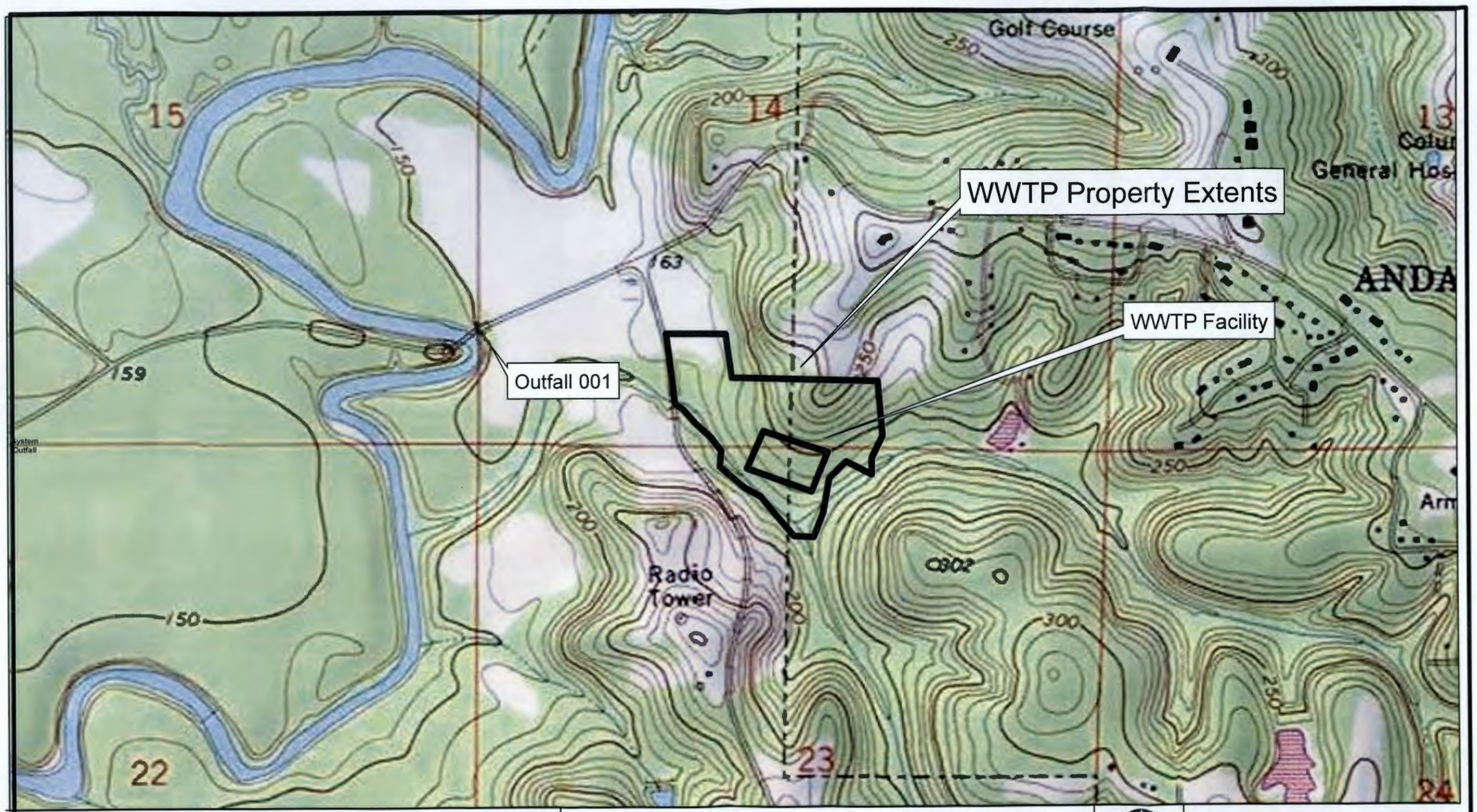
Date: February 2018

Appendix 1

Maps

Topographic Map

WWTP Overview



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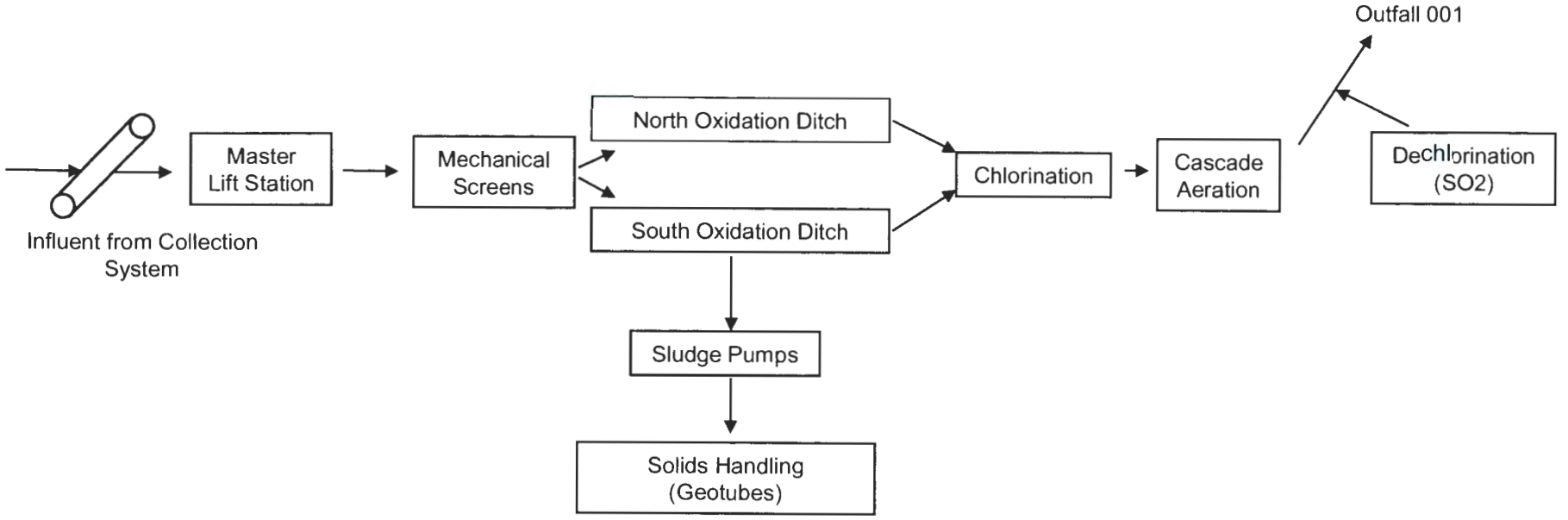
Appendix 2
Flow Schematic

Utilities Board of the City of Andalusia

Riverside Wastewater Treatment Plant

Process Flow Schematic



Appendix 3
Pollutant Scans

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0715
Date Received: 7/15/2015

Sample Number: 148624-01
Description: grab

Collection Date: 07/14/2015 7:40
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
Acrolein	EPA 624	BMDL	ug/L	22	50	07/16/15 19:19	EC	O4
Acrylonitrile	EPA 624	BMDL	ug/L	17.2	50	07/16/15 19:19	EC	
Benzene	EPA 624	BMDL	ug/L	1.46	5	07/16/15 19:19	EC	
bromoform	EPA 624	BMDL	ug/L	2.39	5	07/16/15 19:19	EC	
bromomethane	EPA 624	BMDL	ug/L	4.85	5	07/16/15 19:19	EC	
Carbon Tetrachloride	EPA 624	BMDL	ug/L	1.95	5	07/16/15 19:19	EC	
chlorobenzene	EPA 624	BMDL	ug/L	1.4	5	07/16/15 19:19	EC	
chlorodibromomethane	EPA 624	BMDL	ug/L	1.9	5	07/16/15 19:19	EC	
chloroethane	EPA 624	BMDL	ug/L	1.44	5	07/16/15 19:19	EC	
chloroform	EPA 624	2.82	ug/L	1.34	5	07/16/15 19:19	EC	
chloromethane	EPA 624	BMDL	ug/L	2.72	5	07/16/15 19:19	EC	
2-Chloroethyl vinyl ether	EPA 624	BMDL	ug/L	3	10	07/16/15 19:19	EC	
dichlorobromomethane	EPA 624	BMDL	ug/L	1.81	5	07/16/15 19:19	EC	
1,2-Dichlorobenzene	EPA 624	BMDL	ug/L	1.6	5	07/16/15 19:19	EC	
1,3-Dichlorobenzene	EPA 624	BMDL	ug/L	1.41	5	07/16/15 19:19	EC	
1,4-Dichlorobenzene	EPA 624	BMDL	ug/L	9.67	10	07/16/15 19:19	EC	
1,1-dichloroethene	EPA 624	BMDL	ug/L	1.61	5	07/16/15 19:19	EC	
1,1-dichloroethane	EPA 624	BMDL	ug/L	1.99	5	07/16/15 19:19	EC	
1,2-dichloroethane	EPA 624	BMDL	ug/L	1.42	5	07/16/15 19:19	EC	
trans-1,2 Dichloroethene	EPA 624	BMDL	ug/L	1.56	5	07/16/15 19:19	EC	
1,3-dichloropropene	EPA 624	BMDL	ug/L	1.94	5	07/16/15 19:19	EC	
1,2-dichlororpropane	EPA 624	BMDL	ug/L	1.29	5	07/16/15 19:19	EC	
Ethylbenzene	EPA 624	BMDL	ug/L	1.43	5	07/16/15 19:19	EC	
methylene chloride	EPA 624	BMDL	ug/L	1.51	5	07/16/15 19:19	EC	
tetrachloroethene	EPA 624	BMDL	ug/L	1.79	5	07/16/15 19:19	EC	
trichloroethene	EPA 624	BMDL	ug/L	1.53	5	07/16/15 19:19	EC	
Toluene	EPA 624	BMDL	ug/L	1.58	5	07/16/15 19:19	EC	
vinyl chloride	EPA 624	BMDL	ug/L	1.61	5	07/16/15 19:19	EC	
1,1,2,2-tetrachloroethane	EPA 624	BMDL	ug/L	1.63	5	07/16/15 19:19	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

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Sample Number: 148624-01
Description: grab

Collection Date: 07/14/2015 7:40
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
1,1,2-trichloroethane	EPA 624	BMDL	ug/L	1.87	5	07/16/15 19:19	EC	
xylenes, total	EPA 624	BMDL	ug/L	2.95	5	07/16/15 19:19	EC	
1,1,1-trichloroethane	EPA 624	BMDL	ug/L	1.85	5	07/16/15 19:19	EC	
para-chloro meta-cresol	EPA 625	BMDL	ug/L	6.16	10	07/23/15 7:35	EC	
2-chlorophenol	EPA 625	BMDL	ug/L	5.86	10	07/23/15 7:35	EC	
2,4-dichlorophenol	EPA 625	BMDL	ug/L	6.21	10	07/23/15 7:35	EC	
2,4-dimethylphenol	EPA 625	BMDL	ug/L	6.55	10	07/23/15 7:35	EC	
2-nitrophenol	EPA 625	BMDL	ug/L	5.17	10	07/23/15 7:35	EC	
4-nitrophenol	EPA 625	BMDL	ug/L	20.5	40	07/23/15 7:35	EC	
2,4-dinitrophenol	EPA 625	BMDL	ug/L	13.4	20	07/23/15 7:35	EC	
4,6-dinitro-o-cresol	EPA 625	BMDL	ug/L	8.02	10	07/23/15 7:35	EC	
Pentachlorophenol	EPA 625	BMDL	ug/L	5.26	10	07/23/15 7:35	EC	
Phenol	EPA 625	BMDL	ug/L	8.17	10	07/23/15 7:35	EC	
2,4,6-trichlorophenol	EPA 625	BMDL	ug/L	4.55	10	07/23/15 7:35	EC	
1,2-Diphenylhydrazine	EPA 625	BMDL	ug/L	8.85	10	07/23/15 7:35	EC	
Acenaphthene	EPA 625	BMDL	ug/L	7.08	10	07/23/15 7:35	EC	
Acenaphthylene	EPA 625	BMDL	ug/L	4.07	10	07/23/15 7:35	EC	
Anthracene	EPA 625	BMDL	ug/L	6.66	10	07/23/15 7:35	EC	
Benzidine	EPA 625	BMDL	ug/L	34.7	40	07/23/15 7:35	EC	
benzo (a) anthracene	EPA 625	BMDL	ug/L	5.1	10	07/23/15 7:35	EC	
benzo (ghi)perylene	EPA 625	BMDL	ug/L	5.58	10	07/23/15 7:35	EC	O34
Benzo(A)Pyrene	EPA 625	BMDL	ug/L	5.61	10	07/23/15 7:35	EC	
benzo(b)fluoranthene	EPA 625	BMDL	ug/L	6.56	10	07/23/15 7:35	EC	
benzo(k)fluoranthene	EPA 625	BMDL	ug/L	6.73	10	07/23/15 7:35	EC	
Bis (2-chloroethyl) Ether	EPA 625	BMDL	ug/L	8.42	10	07/23/15 7:35	EC	
bis(2-Chloroethoxy)methane	EPA 625	BMDL	ug/L	5.48	10	07/23/15 7:35	EC	
bis(2-chloroisopropyl)ethe	EPA 625	BMDL	ug/L	9.55	10	07/23/15 7:35	EC	
bis(2-Ethylhexyl)phthalate	EPA 625	BMDL	ug/L	7.58	10	07/23/15 7:35	EC	
Butylbenzyl phthalate	EPA 625	BMDL	ug/L	7.35	10	07/23/15 7:35	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

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Andalusia Utilities Board
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Sample Number: 148624-01
Description: grab

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Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
4-Bromophenyl-phenyl ether	EPA 625	BMDL	ug/L	7.07	10	07/23/15 7:35	EC	
2-Chloronaphthalene	EPA 625	BMDL	ug/L	5.72	10	07/23/15 7:35	EC	
4-chlorophenyl-phenyl ether	EPA 625	BMDL	ug/L	6.33	10	07/23/15 7:35	EC	
Chrysene	EPA 625	BMDL	ug/L	4.17	10	07/23/15 7:35	EC	
Di-n-butyl phthalate	EPA 625	BMDL	ug/L	5.61	10	07/23/15 7:35	EC	
Di-n-octyl phthalate	EPA 625	BMDL	ug/L	5.28	10	07/23/15 7:35	EC	
Dibenzo [a,h] anthracene	EPA 625	BMDL	ug/L	4.66	10	07/23/15 7:35	EC	
1,2-Dichlorobenzene	EPA 625	BMDL	ug/L	1.6	5	07/23/15 7:35	EC	
1,3-Dichlorobenzene	EPA 625	BMDL	ug/L	1.41	5	07/23/15 7:35	EC	
1,4-Dichlorobenzene	EPA 625	BMDL	ug/L	9.67	10	07/23/15 7:35	EC	
3,3-Dichlorobenzidine	EPA 625	BMDL	ug/L	12.2	20	07/23/15 7:35	EC	
Diethyl phthalate	EPA 625	BMDL	ug/L	4.73	10	07/23/15 7:35	EC	
Dimethlyl phthalate	EPA 625	BMDL	ug/L	4.92	10	07/23/15 7:35	EC	
Fluoranthene	EPA 625	BMDL	ug/L	5.8	10	07/23/15 7:35	EC	
Fluorene	EPA 625	BMDL	ug/L	5.38	10	07/23/15 7:35	EC	
Hexachlorobenzene	EPA 625	BMDL	ug/L	5.82	10	07/23/15 7:35	EC	
Hexachlorobutadiene	EPA 625	BMDL	ug/L	8.69	10	07/23/15 7:35	EC	
Hexachlorocyclopentadiene	EPA 625	BMDL	ug/L	6.93	10	07/23/15 7:35	EC	
Hexachloroethane	EPA 625	BMDL	ug/L	8.78	10	07/23/15 7:35	EC	
Indeno [1,2,3-cd] pyrene	EPA 625	BMDL	ug/L	7.43	10	07/23/15 7:35	EC	O4
Isophorone	EPA 625	BMDL	ug/L	7.55	10	07/23/15 7:35	EC	
Naphthalene	EPA 625	BMDL	ug/L	5.04	10	07/23/15 7:35	EC	
2,6-Dinitrotoluene	EPA 625	BMDL	ug/L	6.3	10	07/23/15 7:35	EC	
Nitrobenzene	EPA 625	BMDL	ug/L	5.09	10	07/23/15 7:35	EC	
N-nitroso-di-methylamine	EPA 625	BMDL	ug/L	7.66	10	07/23/15 7:35	EC	
N-nitroso-di-phenylamine	EPA 625	BMDL	ug/L	5.32	10	07/23/15 7:35	EC	
n-nitrosodi-n-propylamine	EPA 625	BMDL	ug/L	8.16	10	07/23/15 7:35	EC	
Phenanthrene	EPA 625	BMDL	ug/L	5.66	10	07/23/15 7:35	EC	
Pyrene	EPA 625	BMDL	ug/L	4.87	10	07/23/15 7:35	EC	

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0715
Date Received: 7/15/2015

Sample Number: 148624-01
Description: grab

Collection Date: 07/14/2015 7:40
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
1,2,4-trichlorobenzene	EPA 625	BMDL	ug/L	9.43	10	07/23/15 7:35	EC	
2,4-Dinitrotoluene	EPA 625	BMDL	ug/L	4.91	10	07/23/15 7:35	EC	

Surrogate	Recovery %	Target Range
2-Fluorophenol	26.6	10-121
phenol-d5	21.0	18-113
Nitrobenzene-d5	52.4	15-120
2-Fluorobiphenyl	50.3	26-115
2,4,6-Tribromophenol	47.4	19-124
p-Terphenyl-d14	56.1	18-137
1,2-Dichloroethane-d4	120	90-128
toluene-d8	93.7	88-110
4-Bromofluorobenzene	96.8	85-114

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Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0715
Date Received: 7/15/2015

Sample Number: 148624-01
Description: grab

Collection Date: 07/14/2015 7:40
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Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-Cl, EPA 600/4-79-020, Rev. March 1979 & 1983.

All collection and test times are reported as central standard time.

EPA- Methods for Chemical Analysis of Water and Wastes, 1994.

EPA-821-R-98-002, February 1999.

For the sample spk and spk duplicate for method 624, the specified precision of 0-20% was not met for several of the compounds in this analytical run.

State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The results shown relate only to these samples.

These results meet all of the requirements of the NELAC standard.

Qualifiers

N10 = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit and should only be relied upon as an estimate.

O34 = The percent recovery for the extracted LCS was not within the acceptance range for this method.

O4 = The matrix spike recovery of the compound was not within its target range.

Z1 = The low-level standard digested with the analytical run did not meet the specified criteria of 85-115% as specified. However, all other continuing checks passed for the run, so analytical run is acceptable for reporting.

Staci Hickman

08/11/2015

Staci Hickman, QA/QC Manager — Date

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

This person may be contacted for questions at the number listed above.

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Results of Analysis For: Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report No 14-0715 Date Received: 7/15/2015

Location effluent PP

Analysis	Result	Units	Qual.	MDL	PQL	Method	Collection Date/Time	Analysis Date/Time	Analyst
148624-01									
Cyanide	<0.0050	mg/L		0.005	0.01	EPA 335.4(1993)	07/14/15 07:40	07/30/15 09:34	CR
DO	10.3	mg/L				SM 4500 OG-2001	07/14/15 07:40	07/15/15 17:40	BEH
Oil & Grease	<1.00	mg/L		1	5	EPA 1664A	07/14/15 07:40	07/20/15 09:45	HK
Phenol	0.0250	mg/L	N10	0.02	0.05	EPA 420.1(1978)	07/14/15 07:40	07/22/15 10:00	BEH
TRC	0.13	mg/L		0.017	0.23	EPA 330.5	07/14/15 07:40	07/15/15 17:30	BEH

Report No 14-0715 Date Received: 7/15/2015

Location Effluent PP

Analysis	Result	Units	Qual.	MDL	PQL	Method	Collection Date/Time	Analysis Date/Time	Analyst
148624-02									
Ammonia	<0.100	mg N/L		0.1	0.2	EPA 350.1(1993)	07/14/15 06:21	07/20/15 11:46	SH
Antimony	<20.0	ug/L		20	25	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
Arsenic	<22.0	ug/L		22	50	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
Beryllium	<2.0	ug/L		2	5	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
Cadmium	<5.0	ug/L		5	10	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
Chromium	<10.0	ug/L		10	25	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
Copper	11.3	ug/L		6	10	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
Hardness	44.7	mg/L CaCO3		3.4	3.4	SM 2340C-1997	07/14/15 06:21	07/29/15 10:00	AR
Lead	<27.0	ug/L		27	50	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
Nickel	<5.0	ug/L		5	10	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
NO2-/NO3	19.6	mg N/L		0.045	0.1	EPA 353.2(1993)	07/14/15 06:21	08/04/15 12:59	CR
Selenium	<20.0	ug/L		20	25	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
Silver	<4.2	ug/L		4.2	10	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
TDS	538	mg/L(Dry)		2	2	SM 2540C-1997	07/14/15 06:21	07/20/15 16:10	BEH
Thallium	<22.0	ug/L		22	25	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW
TKN	0.664	mg N/L	N10	0.5	1.25	EPA 351.2(1993)	07/14/15 06:21	07/23/15 08:05	SH
T-Phosphorous	2.45	mg P/L	Z1	0.1	0.5	EPA 365.4(1974)	07/14/15 06:21	07/23/15 08:05	SH

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

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Results of Analysis For: Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Zinc	47.0	ug/L		13	25	EPA 200.7(1994)	07/14/15 06:21	07/22/15 12:13	HW

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

Staci Hickman

Staci Hickman, QA/QC Manager — 08/11/2015 Date

This person may be contacted for questions at the number listed above.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-Cl, EPA 600/4-79-020, Rev. March 1979 & 1983.

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State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The results shown relate only to these samples.

These results meet all of the requirements of the NELAC standard.

Qualifiers

N10 = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit and should only be relied upon as an estimate.

O34 = The percent recovery for the extracted LCS was not within the acceptance range for this method.

O4 = The matrix spike recovery of the compound was not within its target range.

Z1 = The low-level standard digested with the analytical run did not meet the specified criteria of 85-115% as specified. However, all other continuing checks passed for the run, so analytical run is acceptable for reporting.

SOUTHERN ANALYTICAL LABORATORIES, INC.
110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

Environmental Resource Analysts, Inc.
2975 Brown Court
Auburn, AL 36830

August 10, 2015
Work Order: 1507717

Laboratory Report

Project Name	**Andalusia WWTP**
Sample Description	**148624-01**
Matrix	**Water**
SAL Sample Number	**1507717-01**
Date/Time Collected	**07/14/15 07:40**
Collected by	**Client**
Date/Time Received	**07/31/15 11:30**

Parameters	Units	Results *	Method	PQL	MDL	Prepared	Analyzed	Dilution
Metals								
Mercury	ug/L	0.0054	EPA 1631	0.00040	0.00020	08/07/15 09:05	08/07/15 14:56	1

SOUTHERN ANALYTICAL LABORATORIES, INC.
110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 FAX 813-855-2218

Environmental Resource Analysts, Inc.
2975 Brown Court
Auburn, AL 36830

August 10, 2015
Work Order: 1507717

* Qualifiers, Notes and Definitions

Results followed by a "U" indicate that the sample was analyzed but the compound was not detected. Results followed by "I" indicate that the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

A statement of estimated uncertainty of test results is available upon request.

For methods marked with **, all QC criteria have been met for this method which is equivalent to a SAL certified method.

Test results in this report meet all the requirements of the NELAC standards. Any applicable qualifiers are shown below.

Questions regarding this report should be directed to :

Kathryn Nordmark
Telephone (813) 855-1844 FAX (813) 855-2218
Kathryn@southernanalyticallabs.com

1507717

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
Date Required

Client: Andalusia WWTP
Project: 14-0715

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
grab				DO:				
				TRC:				
comp								

-01

Sample No.	148624-01
Location	effluent PP
Collector	
Date/Time Sampled	7/14/2015 7:40:00 AM

Sample No.	148624-02
Location	Effluent PP
Collector	
Date/Time Sampled	7/14/2015 6:21:00 AM

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
~~-01a~~	~~None~~	~~DO, TRC~~		-01c	~~H2SO4~~	~~O&G~~	
~~-01d~~	~~H2SO4~~	~~Phenol~~		-01e	~~naoh/za~~	~~CN-~~	
-01f	None	subcontract 11Hay		-01g	~~NA2S2O3~~	~~TTO-624 and 625~~	
~~-02a~~	~~None~~	~~TDS~~		-02b	~~None~~	~~Hardness~~	
~~-02c~~	~~H2SO4~~	~~AMMONIA~~		-02d	~~H2SO4~~	~~Phosphate, TKN~~	
~~-02e~~	~~H2SO4~~	~~NO2-NO3~~		-02f	HNO3	~~ICP Metals~~	

Page 3 of 3

Relinquished By: J. Dobbins Date/Time: 072915 1011 Received By: [illegible] Date/Time:

Relinquished By: [illegible] Date/Time: Received By: [illegible] Date/Time:

Relinquished By: Date/Time:

Received at Lab By: [illegible] Date/Time: 7-31-15 1130 Method of Transfer: Arrival Temp (C):

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0217
Date Received: 2/15/2017

Sample Number: 165886-01
Description: grab

Collection Date: 02/15/2017 9:10
Location: Effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
Acrolein	EPA 624	BMDL	ug/L	30.8	50	02/17/17 10:23	EC	
Acrylonitrile	EPA 624	BMDL	ug/L	17	50	02/17/17 10:23	EC	
Benzene	EPA 624	BMDL	ug/L	1.69	5	02/17/17 9:39	EC	
bromoform	EPA 624	BMDL	ug/L	2.35	5	02/17/17 9:39	EC	
bromomethane	EPA 624	BMDL	ug/L	2.34	5	02/17/17 9:39	EC	
Carbon Tetrachloride	EPA 624	BMDL	ug/L	1.82	5	02/17/17 9:39	EC	
chlorobenzene	EPA 624	BMDL	ug/L	3.82	5	02/17/17 9:39	EC	
chlorodibromomethane	EPA 624	BMDL	ug/L	2	5	02/17/17 9:39	EC	
chloroethane	EPA 624	BMDL	ug/L	2.28	5	02/17/17 9:39	EC	
chloroform	EPA 624	BMDL	ug/L	1.84	5	02/17/17 9:39	EC	
chloromethane	EPA 624	BMDL	ug/L	2.7	5	02/17/17 9:39	EC	
2-Chloroethyl vinyl ether	EPA 624	BMDL	ug/L	5.09	10	02/17/17 9:39	EC	
dichlorobromomethane	EPA 624	BMDL	ug/L	1.79	5	02/17/17 9:39	EC	
1,2-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	02/17/17 9:39	EC	
1,4-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	02/17/17 9:39	EC	
1,1-dichloroethene	EPA 624	BMDL	ug/L	1.98	5	02/17/17 9:39	EC	
1,1-dichloroethane	EPA 624	BMDL	ug/L	1.55	5	02/17/17 9:39	EC	
1,2-dichloroethane	EPA 624	BMDL	ug/L	1.84	5	02/17/17 9:39	EC	
trans-1,2 Dichloroethene	EPA 624	BMDL	ug/L	1.94	5	02/17/17 9:39	EC	
1,3-dichloropropene	EPA 624	BMDL	ug/L	1.4	5	02/17/17 9:39	EC	
1,2-dichlororpropane	EPA 624	BMDL	ug/L	1.53	5	02/17/17 9:39	EC	
Ethylbenzene	EPA 624	BMDL	ug/L	1.92	5	02/17/17 9:39	EC	
methylene chloride	EPA 624	BMDL	ug/L	2.21	5	02/17/17 9:39	EC	
tetrachloroethene	EPA 624	BMDL	ug/L	2	5	02/17/17 9:39	EC	
trichloroethene	EPA 624	BMDL	ug/L	1.81	5	02/17/17 9:39	EC	
Toluene	EPA 624	BMDL	ug/L	1.72	5	02/17/17 9:39	EC	
vinyl chloride	EPA 624	BMDL	ug/L	1.95	5	02/17/17 9:39	EC	
1,1,2,2-tetrachloroethane	EPA 624	BMDL	ug/L	1.76	5	02/17/17 9:39	EC	
1,1,2-trichloroethane	EPA 624	BMDL	ug/L	1.61	5	02/17/17 9:39	EC	

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

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Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0217
Date Received: 2/15/2017

Sample Number: 165886-01
Description: grab

Collection Date: 02/15/2017 9:10
Location: Effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
xylenes, total	EPA 624	BMDL	ug/L	3.83	5	02/17/17 9:39	EC	
1,1,1-trichloroethane	EPA 624	BMDL	ug/L	1.94	5	02/17/17 9:39	EC	
1,2-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	03/14/17 10:05	EC	
1,4-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	03/14/17 10:05	EC	
1,3-Dichlorobenzene	EPA 625	BMDL	ug/L	9.66	10	02/17/17 9:39	EC	
para-chloro meta-cresol	EPA 625	BMDL	ug/L	6.39	10	03/14/17 10:05	EC	
2-chlorophenol	EPA 625	BMDL	ug/L	5.41	10	03/14/17 10:05	EC	
2,4-dichlorophenol	EPA 625	BMDL	ug/L	6.34	10	03/14/17 10:05	EC	
2,4-dimethylphenol	EPA 625	BMDL	ug/L	6.66	10	03/14/17 10:05	EC	
2-nitrophenol	EPA 625	BMDL	ug/L	6.22	10	03/14/17 10:05	EC	O32
4-nitrophenol	EPA 625	BMDL	ug/L	21.3	40	03/14/17 10:05	EC	
2,4-dinitrophenol	EPA 625	BMDL	ug/L	11	20	03/14/17 10:05	EC	O32
4,6-dinitro-o-cresol	EPA 625	BMDL	ug/L	8.12	10	03/14/17 10:05	EC	
Pentachlorophenol	EPA 625	BMDL	ug/L	8.19	10	03/14/17 10:05	EC	O34
Phenol	EPA 625	BMDL	ug/L	4.61	10	03/14/17 10:05	EC	
2,4,6-trichlorophenol	EPA 625	BMDL	ug/L	6.98	10	03/14/17 10:05	EC	
1,2-Diphenylhydrazine	EPA 625	BMDL	ug/L	8.34	10	03/14/17 10:05	EC	
Acenaphthene	EPA 625	BMDL	ug/L	5.7	10	03/14/17 10:05	EC	
Acenaphthylene	EPA 625	BMDL	ug/L	6.12	10	03/14/17 10:05	EC	
Anthracene	EPA 625	BMDL	ug/L	8.88	10	03/14/17 10:05	EC	
Benzidine	EPA 625	BMDL	ug/L	7.82	10	03/14/17 10:05	EC	
benzo (a) anthracene	EPA 625	BMDL	ug/L	7.79	10	03/14/17 10:05	EC	
benzo (ghi)perylene	EPA 625	BMDL	ug/L	5.64	10	03/14/17 10:05	EC	
Benzo(A)Pyrene	EPA 625	BMDL	ug/L	8.94	10	03/14/17 10:05	EC	
benzo(b)fluoranthene	EPA 625	BMDL	ug/L	9.16	10	03/14/17 10:05	EC	
benzo(k)fluoranthene	EPA 625	BMDL	ug/L	10.9	20	03/14/17 10:05	EC	
Bis (2-chloroethyl) Ether	EPA 625	BMDL	ug/L	5.59	10	03/14/17 10:05	EC	
bis(2-Chloroethoxy)methane	EPA 625	BMDL	ug/L	8.72	10	03/14/17 10:05	EC	
bis(2-chloroisopropyl)ethe	EPA 625	BMDL	ug/L	8.54	10	03/14/17 10:05	EC	

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

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Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0217
Date Received: 2/15/2017

Sample Number: 165886-01
Description: grab

Collection Date: 02/15/2017 9:10
Location: Effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
bis(2-Ethylhexyl)phthalate	EPA 625	BMDL	ug/L	9.26	10	03/14/17 10:05	EC	
Butylbenzyl phthalate	EPA 625	BMDL	ug/L	7.84	10	03/14/17 10:05	EC	
4-Bromophenyl-phenyl ether	EPA 625	BMDL	ug/L	9.72	10	03/14/17 10:05	EC	
2-Chloronaphthalene	EPA 625	BMDL	ug/L	8.51	10	03/14/17 10:05	EC	
4-chlorophenyl-phenyl ether	EPA 625	BMDL	ug/L	8.74	10	03/14/17 10:05	EC	
Chrysene	EPA 625	BMDL	ug/L	6.18	10	03/14/17 10:05	EC	
Di-n-butyl phthalate	EPA 625	BMDL	ug/L	9.91	10	03/14/17 10:05	EC	
Di-n-octyl phthalate	EPA 625	BMDL	ug/L	9.91	10	03/14/17 10:05	EC	
Dibenzo [a,h] anthracene	EPA 625	BMDL	ug/L	5.36	10	03/14/17 10:05	EC	
1,3-Dichlorobenzene	EPA 625	BMDL	ug/L	9.66	10	03/14/17 10:05	EC	
3,3-Dichlorobenzidine	EPA 625	BMDL	ug/L	7.41	20	03/14/17 10:05	EC	
Diethyl phthalate	EPA 625	BMDL	ug/L	7.8	10	03/14/17 10:05	EC	
Dimethlyl phthalate	EPA 625	BMDL	ug/L	8.83	10	03/14/17 10:05	EC	
Fluoranthene	EPA 625	BMDL	ug/L	7.84	10	03/14/17 10:05	EC	
Fluorene	EPA 625	BMDL	ug/L	8.01	10	03/14/17 10:05	EC	
Hexachlorobenzene	EPA 625	BMDL	ug/L	7.27	10	03/14/17 10:05	EC	
Hexachlorobutadiene	EPA 625	BMDL	ug/L	9.18	10	03/14/17 10:05	EC	
Hexachlorocyclopentadiene	EPA 625	BMDL	ug/L	9.46	10	03/14/17 10:05	EC	O4,O
Hexachloroethane	EPA 625	BMDL	ug/L	9.62	10	03/14/17 10:05	EC	
Indeno [1,2,3-cd] pyrene	EPA 625	BMDL	ug/L	4.94	10	03/14/17 10:05	EC	
Isophorone	EPA 625	BMDL	ug/L	8.7	10	03/14/17 10:05	EC	
Naphthalene	EPA 625	BMDL	ug/L	6.84	10	03/14/17 10:05	EC	
2,6-Dinitrotoluene	EPA 625	BMDL	ug/L	8.54	10	03/14/17 10:05	EC	
Nitrobenzene	EPA 625	BMDL	ug/L	6.92	10	03/14/17 10:05	EC	
N-nitroso-di-methylamine	EPA 625	BMDL	ug/L	4.91	10	03/14/17 10:05	EC	O61,
N-nitroso-di-phenylamine	EPA 625	BMDL	ug/L	9.15	10	03/14/17 10:05	EC	
n-nitrosodi-n-propylamine	EPA 625	BMDL	ug/L	7.28	10	03/14/17 10:05	EC	
Phenanthrene	EPA 625	BMDL	ug/L	8.27	10	03/14/17 10:05	EC	
Pyrene	EPA 625	BMDL	ug/L	7.8	10	03/14/17 10:05	EC	

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0217
Date Received: 2/15/2017

Sample Number: 165886-01
Description: grab

Collection Date: 02/15/2017 9:10
Location: Effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-Cl, EPA 600/4-79-020, Rev. March 1979 & 1983.

All collection and test times are reported as central standard time.

EPA- Methods for Chemical Analysis of Water and Wastes, 1994.

EPA-821-R-98-002, February 1999.

For EPA 624: The end CCV standard was prepared incorrectly causing the %RPD to fail for several analytes.

For EPA 625 the tailing factor for Pentachlorophenol did not meet the method requirement of 5.00.

Several EPA 625 compounds did not meet the 0-20% precision requirement between the matrix spike and spike duplicate. All compounds met accuracy requirements.

State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The results shown relate only to these samples.

These results meet all of the requirements of the NELAC standard.

Qualifiers

N10 = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit and should only be relied upon as an estimate.
O32 = This CCC compound was not within its target range of <20% drift of RF from the compound at initial calibration.
O34 = The percent recovery for the extracted LCS was not within the acceptance range for this method.
O4 = The matrix spike recovery of the compound was not within its target range.
O61 = Only a partial peak detected in standards.

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

_____ _____
, Date

This person may be contacted for questions at the number listed above.

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Results of Analysis For: Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report No 14-0217 Date Received: 2/15/2017

Location Effluent PP

Analysis	Result	Units	Qual.	MDL	PQL	Method	Collection Date/Time	Analysis Date/Time	Analyst
165886-01									
Cyanide	<0.0040	mg/L		0.004	0.01	EPA 335.4(1993)	02/15/17 09:10	02/23/17 18:17	MR
Oil & Grease	<1.00	mg/L		1	5	EPA 1664A	02/15/17 09:10	02/22/17 13:30	HK
Phenol	<0.0150	mg/L		0.015	0.05	EPA 420.1(1978)	02/15/17 09:10	02/27/17 09:00	BEH
165886-02									
Ammonia	<0.100	mg N/L		0.1	0.2	EPA 350.1(1993)	02/15/17 08:00	02/17/17 14:07	CR
Antimony	<20.0	ug/L		20	50	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
Arsenic	<22.0	ug/L		22	50	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
Beryllium	<4.0	ug/L		4	5	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
Cadmium	<4.0	ug/L		4	10	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
Chromium	<7.0	ug/L		7	25	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
Copper	10.5	ug/L		6	10	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
Hardness	44.8	mg/L CaCO3		4.5	4.5	SM 2340C-1997	02/15/17 08:00	02/23/17 14:30	AR
Lead	<26.0	ug/L		26	50	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
Nickel	<8.0	ug/L		8	10	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
NO2-/NO3	13.1	mg N/L		0.022	0.1	EPA 353.2(1993)	02/15/17 08:00	02/22/17 14:27	CR
Selenium	<26.0	ug/L		26	50	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
Silver	<8.0	ug/L		8	10	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
TDS	297	mg/L(Dry)		2	2	SM 2540C-1997	02/15/17 08:00	02/20/17 16:00	BEH
Thallium	<34.0	ug/L		34	50	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR
TKN	<0.570	mg N/L	N10	0.57	1.25	EPA 351.2(1993)	02/15/17 08:00	03/03/17 13:23	CR
Total Phosphorus	1.81	mg P/L		0.065	1	EPA 365.4 (1974)	02/15/17 08:00	03/03/17 13:23	CR
Zinc	42.5	ug/L		10	25	EPA 200.7(1994)	02/15/17 08:00	02/21/17 15:23	CR

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Results of Analysis For: Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

Date

This person may be contacted for questions at the number listed above.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-Cl, EPA 600/4-79-020, Rev. March 1979 & 1983.

All collection and test times are reported as central standard time.

EPA- Methods for Chemical Analysis of Water and Wastes, 1994.

EPA-821-R-98-002, February 1999.

For EPA 624: The end CCV standard was prepared incorrectly causing the %RPD to fail for several analytes.

For EPA 625 the tailing factor for Pentachlorophenol did not meet the method requirement of 5.00.

Several EPA 625 compounds did not meet the 0-20% precision requirement between the matrix spike and spike duplicate. All compounds met accuracy requirements.

State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The results shown relate only to these samples.

These results meet all of the requirements of the NELAC standard.

Qualifiers

N10 = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit and should only be relied upon as an estimate.

O32 = This CCC compound was not within its target range of <20% drift of RF from the compound at initial calibration.

O34 = The percent recovery for the extracted LCS was not within the acceptance range for this method.

O4 = The matrix spike recovery of the compound was not within its target range.

O61 = Only a partial peak detected in standards.

Preliminary Results: Not Approved

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

March 09, 2017

Erin Consuegra

RE: Project: 14-0217
Pace Project No.: 35297583

Dear Erin Consuegra:
Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Amy Atkins
amy.atkins@pacelabs.com
(813) 881-9401
Project Manager

Enclosures

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)681-9401

CERTIFICATIONS

Project: 14-0217
Pace Project No.: 35297583

Tampa Certification IDs
110 South Bayview Blvd., Tampa, FL 34677
Florida Certification #:E84129
Alabama Certification #: 41560
Georgia Certification #: 949
Georgia Certification #: #949
Maine Certification #: 2015035
New Hampshire Certification #: 2955

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

SAMPLE SUMMARY

Project: 14-0217
Pace Project No.: 35297583

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35297583001	165886-01	Water	02/15/17 09:10	02/28/17 13:00

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

SAMPLE ANALYTE COUNT

Project: 14-0217
Pace Project No.: 35297583

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35297583001	165886-01	EPA 1631E	AS1	1	PASI-Tp

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

ANALYTICAL RESULTS

Project: 14-0217
Pace Project No.: 35297583

Sample: 165866-01 **Lab ID: 35297583001** Collected: 02/15/17 09:10 Received: 02/28/17 13:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
1631E Mercury,Low Level Tampa	Analytical Method: EPA 1631E Preparation Method: EPA 1631E								
Mercury	**5.80**	ng/L	0.50	0.25	1	03/03/17 12:45	03/03/17 15:52	7439-97-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

QUALITY CONTROL DATA

Project: 14-0217
Pace Project No.: 35297583

QC Batch: 354268 Analysis Method: EPA 1631E
QC Batch Method: EPA 1631E Analysis Description: 1631E Mercury,Low Level
Associated Lab Samples: 35297583001

METHOD BLANK: 1905706 Matrix: Water
Associated Lab Samples: 35297583001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.25 U	0.50	0.25	03/03/17 14:42	

METHOD BLANK: 1905707 Matrix: Water
Associated Lab Samples: 35297583001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.25 U	0.50	0.25	03/03/17 14:47	

METHOD BLANK: 1905708 Matrix: Water
Associated Lab Samples: 35297583001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.25 U	0.50	0.25	03/03/17 14:52	

LABORATORY CONTROL SAMPLE: 1905709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ng/L	20	16.8	84	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1905710 1905711

Parameter	Units	35297770001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ng/L	4.80	20	20	25.2	24.3	102	98	71-125	4	24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

QUALIFIERS

Project: 14-0217
Pace Project No.: 35297583

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-Tp Pace Analytical Services - Tampa

ANALYTE QUALIFIERS

U Compound was analyzed for but not detected.

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
Date Required

Client: Andalusia WWTP
Project: 14-0217

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #

Sample No.	165886-01	grab
Location	Effluent PP	
Collector		
Date/Time Sampled	2/15/2017 9:10:00 AM	

WO# : 35297583

35297583

Sample No.	165886-02	comp
Location	Effluent PP	
Collector		
Date/Time Sampled	2/15/2017 8:00:00 AM	

Sample No.	165886-03	grab
Location	trip blank voc	
Collector		
Date/Time Sampled	1/31/2017	

Sample	Preservation	Analysis	Preservation CK
~~-01b~~	~~H2SO4~~	~~O&G~~	
~~-01d~~	~~naoh/aa~~	~~CN~~	
~~-01f~~	~~NA2S2O3~~	~~TTO-624 and 625~~	
~~-02a~~	~~H2SO4~~	~~AMMONIA~~	
~~-02c~~	~~H2SO4~~	~~NO2-/NO3~~	
~~-02e~~	~~None~~	~~TDS~~	
~~-02g~~	~~None~~	~~Hardness~~	
~~-03b~~	~~None~~	~~WW VOC - 624~~	

Sample	Preservation	Analysis	Preservation CK
-01e	None	subcontract 1 1Hg	
~~-01e~~	~~H2SO4~~	~~Phenol~~	
~~-01g~~	~~None~~	~~TTO-624 and 625~~	
~~-02b~~	~~H2SO4~~	~~TKN~~	
~~-02d~~	~~H2SO4~~	~~T-Phosphorus~~	
~~-02f~~	~~HNO3~~	~~ICP Metals~~	
~~-03a~~	~~NA2S2O3~~	~~WW VOC - 624~~	

Relinquished By: [signature] Date/Time: 0241 1300 Received By: [signature] via UPS Date/Time: 01/23/14 1300 T= 24.3°

Relinquished By: Date/Time: Received By: Date/Time:

Relinquished By: Date/Time:

Received at Lab By:	Date/Time:	Method of Transfer:	Arrival Temp (C):

Pace Analytical Partial Laboratory	Document Name: Sample Condition Upon Receipt Form	Document Revised: February 6, 2017
	Document No.: F-FL-C-007 rev. 11	Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project # WO#: 35297583

Project Manager: PM: ADA Due Date: 03/14/17

Client: CLIENT: 37-ENVRES

Date and Initials of person:
Examining contents: GVD 2/28/17
Label: GVD
Deliver: GVD
pH:

Thermometer Used: T-203 Date: 02/28/17 Time: 12:16 Initials: CFW

Cooler #1 Temp.°C	24.3 (Visual)	0.0 (Correction Factor)	24.3 (Actual) Cooler1	☐ Samples on ice, cooling process has begun
Cooler #2 Temp.°C	(Visual)	(Correction Factor)	(Actual) Cooler 2	☐ Samples on ice, cooling process has begun
Cooler #3 Temp.°C	(Visual)	(Correction Factor)	(Actual) Cooler 3	☐ Samples on ice, cooling process has begun
Cooler #4 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #5 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #6 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun

Courier: ☐ Fed Ex ☑ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other

Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☑ Ground ☐ Other

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☑ Unknown

Tracking # 12 LE2 3R4 03 5365 5335

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals Intact: ☐ Yes ☐ No Ice: Wet Blue (None)

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Samples shorted to lab (If Yes, complete) Shorted Date: Shorted Time: Qty:

		Comments:
Chain of Custody Present	☑ Yes ☐ No ☐ N/A	
Chain of Custody Filled Out	☑ Yes ☐ No ☐ N/A	
Relinquished Signature & Sampler Name COC GVD	☑ Yes ☑ No ☐ N/A	
Samples Arrived within Hold Time	☑ Yes ☐ No ☐ N/A	
Rush TAT requested on COC	☐ Yes ☑ No ☐ N/A	
Sufficient Volume	☑ Yes ☐ No ☐ N/A	
Correct Containers Used	☑ Yes ☐ No ☐ N/A	
Containers Intact	☑ Yes ☐ No ☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☑ Yes ☐ No ☐ N/A	
All containers needing acid/base preservation have been checked.	☐ Yes ☐ No ☑ N/A	Preservation Information: Preservative: Lot #/Trace #: Date: Time: Initials:
All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates	☐ Yes ☐ No ☑ N/A	
Headspace in VOA Vials? (>6mm):	☐ Yes ☐ No ☑ N/A	
Trip Blank Present:	☐ Yes ☐ No ☑ N/A	

Client Notification/ Resolution:
Person Contacted: Date/Time:

Comments/ Resolution (use back for additional comments):

Project Manager Review: Date:

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
Date Required

Client: Andalusia WWTP
Project: 14-0217

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
grab								
comp	1/hr	2/14 0900	2/15 0800					
grab								

	165886-01	165886-02	165886-03
Location	Effluent PP	Effluent PP	trip blank voc
Collector	D. Prestwood	D Prestwood	ERA
Date/Time Sampled	2-15-17 0910	2-15-17 0900	021317

Sample	Preservation	Analysis	Preservation CK
-01b	H2SO4	O&G	pH≤2.0
-01d	naoh/aa	CN-	pH≥12.0
-01f	NA2S2O3	TTO-624 and 625	BG
-02a	H2SO4	AMMONIA	pH≤2.0
-02c	H2SO4	NO2-/NO3	pH≤2.0
-02e	None	TDS	BG
-02g	None	Hardness	1
-03b	None	WW VOC - 624	1

Sample	Preservation	Analysis	Preservation CK
-01c	None	subcontract	BG
-01e	H2SO4	Phenol	pH≤2.0
-01g	None	TTO-624 and 625	BG
-02b	H2SO4	TKN	pH≤2.0
-02d	H2SO4	T-Phosphorus	pH≤2.0
-02f	HNO3	ICP Metals HNO_3 added @1555	pH≤2.0
-03a	NA2S2O3	WW VOC - 624	BG

Relinquished By: _____ Date/Time: 2-15-17 0915 Received By: BG Date/Time: 02-15-17 1015

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Received at Lab By: BG Date/Time: 02-15-17 1515 Method of Transfer: ERA Arrival Temp (C): 3.0

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Report Number:
Date Received:

Sample Number: Collection Date:
Description: Location:

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

_____ _____
#Type! Date

This person may be contacted for questions at the number listed above.

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Results of Analysis For: Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report No 14-0118 Date Received: 1/3/2018

Location effluent PP

Analysis	Result	Units	Qual.	MDL	PQL	Method	Collection Date/Time	Analysis Date/Time	Analyst
175415-01									
Cyanide	<0.0040	mg/L	N9	0.004	0.01	EPA 335.4(1993)	01/03/18 09:30	01/12/18 10:21	AO
LL Hg	com	ug/L		0.0002	0.0004	EPA 1631	01/03/18 09:30		NG
Oil & Grease	1.27	mg/L	N10	1	5	EPA 1664A	01/03/18 09:30	01/08/18 12:50	HK
Total Phenols	0.015	mg/L	N10	0.015	0.05	EPA 420.1(1978)	01/03/18 09:30	01/18/18 10:00	JA
175415-02									
Ammonia	<0.100	mg N/L		0.1	0.2	EPA 350.1(1993)	01/03/18 09:00	01/04/18 15:39	AO
Antimony	<20.0	ug/L		20	50	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
Arsenic	<22.0	ug/L		22	50	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
Beryllium	<4.0	ug/L		4	5	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
Cadmium	<4.0	ug/L		4	10	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
Chromium	<7.0	ug/L		7	25	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
Copper	15.4	ug/L		6	10	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
Hardness	39.7	mg/L CaCO3		4.5	4.5	SM 2340C-1997	01/03/18 09:00	01/05/18 13:30	BU
Lead	<26.0	ug/L		26	50	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
Nickel	<8.0	ug/L		8	10	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
NO2-/NO3	17.3	mg N/L	N12	0.022	0.1	EPA 353.2(1993)	01/03/18 09:00	01/08/18 09:47	HK
Selenium	<26.0	ug/L		26	50	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
Silver	<8.0	ug/L		8	10	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
TDS	455	mg/L(Dry)		2	2	SM 2540C-1997	01/03/18 09:00	01/09/18 17:00	BEH
Thallium	<34.0	ug/L		34	50	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR
TKN	1.13	mg N/L	N10, N12, N81	0.474	1.25	EPA 351.2(1993)	01/03/18 09:00	01/10/18 09:03	AO
Total Phosphorus	2.13	mg P/L		0.1	1	EPA 365.4 (1974)	01/03/18 09:00	01/10/18 09:03	AO
Zinc	117	ug/L		10	25	EPA 200.7(1994)	01/03/18 09:00	01/10/18 16:50	MR

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Results of Analysis For: Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Analytes - NOT NELAC Certified

1,2-Dichloroethane-d4	4-Bromofluorobenzene	LL Hg	toluene-d8

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

, Date

This person may be contacted for questions at the number listed above.

"Methods for Chemical Analysis of Water and Wastes" EPA, EMSL-Cl, EPA 600/4-79-020, Rev. March 1979 & 1983.

BMDL = Below Method Detection Limit

COD: EPA approved methods in "HACH Water Analysis Handbook", 2nd Ed.

EPA- Methods for Chemical Analysis of Water and Wastes, 1994.

For 624: The mid-range calibration point of 60ug/L was deleted out of the calibration for several compounds due to poor recovery.

Oil & Grease: EPA-821-R-98-002, February 1999.

State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The BFB check failed for one or more masses.

The results shown relate only to these samples.

These results meet all of the requirements of the NELAC standard.

Qualifiers

N10 = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit and should only be relied upon as an estimate.

N12 = The matrix spike recovery was not within the 90-110% range as specified by the method.

N81 = The % recovery of the digested mid-range check standard was not within 90-110% as specified by the method.

N9 = The second source standard recovery was not +/- 10% as specified by the method.

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0118
Date Received: 1/3/2018

Sample Number: 175415-01
Description: grab

Collection Date: 01/03/2018 9:30
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
Acrolein/Acrylonitrile								
Acrylonitrile	EPA 624	BMDL	ug/L	17	50	01/08/18 16:06	NG	
Acrolein	EPA 624	BMDL	ug/L	30.8	50	01/08/18 16:06	NG	

Surrogate	**Recovery %**	**Target Range**
4-Bromofluorobenzene	100	90-110
toluene-d8	97.5	90-110
1,2-Dichloroethane-d4	98.3	88-119

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

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Laboratory Report

Andalusia Utilities Board
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N9 = The second source standard recovery was not +/- 10% as specified by the method.

Analytes - NOT NELAC Certified

1,2-Dichloroethane-d4 4-Bromofluorobenzene LL Hg toluene-d8

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

, Date

This person may be contacted for questions at the number listed above.

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0118
Date Received: 1/3/2018

Sample Number: 175415-01
Description: grab

Collection Date: 01/03/2018 9:30
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
Benzene	EPA 624	BMDL	ug/L	1.69	5	01/08/18 15:22	NG	
bromoform	EPA 624	BMDL	ug/L	2.35	5	01/08/18 15:22	NG	
bromomethane	EPA 624	BMDL	ug/L	2.34	5	01/08/18 15:22	NG	
Carbon Tetrachloride	EPA 624	BMDL	ug/L	1.82	5	01/08/18 15:22	NG	
chlorobenzene	EPA 624	BMDL	ug/L	3.82	5	01/08/18 15:22	NG	
chlorodibromomethane	EPA 624	BMDL	ug/L	2	5	01/08/18 15:22	NG	
chloroethane	EPA 624	BMDL	ug/L	2.28	5	01/08/18 15:22	NG	
chloroform	EPA 624	BMDL	ug/L	1.84	5	01/08/18 15:22	NG	
chloromethane	EPA 624	BMDL	ug/L	2.7	5	01/08/18 15:22	NG	
2-Chloroethyl vinyl ether	EPA 624	BMDL	ug/L	5.09	10	01/08/18 15:22	NG	
dichlorobromomethane	EPA 624	BMDL	ug/L	1.79	5	01/08/18 15:22	NG	
1,4-Dichlorobenzene	EPA 624	BMDL	ug/L	2.11	5	01/08/18 15:22	NG	
1,1-dichloroethene	EPA 624	BMDL	ug/L	1.98	5	01/08/18 15:22	NG	
1,1-dichloroethane	EPA 624	BMDL	ug/L	1.55	5	01/08/18 15:22	NG	
1,2-dichloroethane	EPA 624	BMDL	ug/L	1.84	5	01/08/18 15:22	NG	
trans-1,2 Dichloroethene	EPA 624	BMDL	ug/L	1.94	5	01/08/18 15:22	NG	
1,3-dichloropropene	EPA 624	BMDL	ug/L	1.4	5	01/08/18 15:22	NG	
1,2-dichlororpropane	EPA 624	BMDL	ug/L	1.53	5	01/08/18 15:22	NG	
Ethylbenzene	EPA 624	BMDL	ug/L	1.92	5	01/08/18 15:22	NG	
methylene chloride	EPA 624	BMDL	ug/L	2.21	5	01/08/18 15:22	NG	
tetrachloroethene	EPA 624	BMDL	ug/L	2	5	01/08/18 15:22	NG	
trichloroethene	EPA 624	BMDL	ug/L	1.81	5	01/08/18 15:22	NG	
Toluene	EPA 624	BMDL	ug/L	1.72	5	01/08/18 15:22	NG	
vinyl chloride	EPA 624	BMDL	ug/L	1.95	5	01/08/18 15:22	NG	
1,1,2,2-tetrachloroethane	EPA 624	BMDL	ug/L	1.76	5	01/08/18 15:22	NG	
1,1,2-trichloroethane	EPA 624	BMDL	ug/L	1.61	5	01/08/18 15:22	NG	
xylenes, total	EPA 624	BMDL	ug/L	3.83	5	01/08/18 15:22	NG	
1,1,1-trichloroethane	EPA 624	BMDL	ug/L	1.94	5	01/08/18 15:22	NG	
1,3-Dichlorobenzene	EPA 624	BMDL	ug/L	2.43	5	01/08/18 16:06	NG	

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0118
Date Received: 1/3/2018

Sample Number: 175415-01
Description: grab

Collection Date: 01/03/2018 9:30
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
1,2-Dichlorobenzene	EPA 625	BMDL	ug/L	9.87	10	01/31/18 3:52	BEH	
1,3-Dichlorobenzene	EPA 625	BMDL	ug/L	9.66	10	01/08/18 15:22	BEH	
para-chloro meta-cresol	EPA 625	BMDL	ug/L	6.39	10	01/31/18 3:52	BEH	
2-chlorophenol	EPA 625	BMDL	ug/L	5.41	10	01/31/18 3:52	BEH	
2,4-dichlorophenol	EPA 625	BMDL	ug/L	6.34	10	01/31/18 3:52	BEH	
2,4-dimethylphenol	EPA 625	BMDL	ug/L	6.66	10	01/31/18 3:52	BEH	
2-nitrophenol	EPA 625	BMDL	ug/L	6.22	10	01/31/18 3:52	BEH	
4-nitrophenol	EPA 625	BMDL	ug/L	21.3	40	01/31/18 3:52	BEH	
2,4-dinitrophenol	EPA 625	BMDL	ug/L	11	20	01/31/18 3:52	BEH	
4,6-dinitro-o-cresol	EPA 625	BMDL	ug/L	8.12	10	01/31/18 3:52	BEH	
Pentachlorophenol	EPA 625	BMDL	ug/L	8.19	10	01/31/18 3:52	BEH	O5
Phenol	EPA 625	BMDL	ug/L	4.61	10	01/31/18 3:52	BEH	
2,4,6-trichlorophenol	EPA 625	BMDL	ug/L	6.98	10	01/31/18 3:52	BEH	
1,2-Diphenylhydrazine	EPA 625	BMDL	ug/L	8.34	10	01/31/18 3:52	BEH	
Acenaphthene	EPA 625	BMDL	ug/L	5.7	10	01/31/18 3:52	BEH	
Acenaphthylene	EPA 625	BMDL	ug/L	6.12	10	01/31/18 3:52	BEH	
Anthracene	EPA 625	BMDL	ug/L	8.88	10	01/31/18 3:52	BEH	
Benzidine	EPA 625	BMDL	ug/L	7.82	10	01/31/18 3:52	BEH	O5
benzo (a) anthracene	EPA 625	BMDL	ug/L	7.79	10	01/31/18 3:52	BEH	
benzo (ghi)perylene	EPA 625	BMDL	ug/L	5.64	10	01/31/18 3:52	BEH	O5
Benzo(A)Pyrene	EPA 625	BMDL	ug/L	8.94	10	01/31/18 3:52	BEH	
benzo(b)fluoranthene	EPA 625	BMDL	ug/L	9.16	10	01/31/18 3:52	BEH	
benzo(k)fluoranthene	EPA 625	BMDL	ug/L	10.9	20	01/31/18 3:52	BEH	
Bis (2-chloroethyl) Ether	EPA 625	BMDL	ug/L	5.59	10	01/31/18 3:52	BEH	
bis(2-Chloroethoxy)methane	EPA 625	BMDL	ug/L	8.72	10	01/31/18 3:52	BEH	
bis(2-chloroisopropyl)ethe	EPA 625	BMDL	ug/L	8.54	10	01/31/18 3:52	BEH	
bis(2-Ethylhexyl)phthalate	EPA 625	BMDL	ug/L	9.26	10	01/31/18 3:52	BEH	
Butylbenzyl phthalate	EPA 625	BMDL	ug/L	7.84	10	01/31/18 3:52	BEH	
4-Bromophenyl-phenyl ether	EPA 625	BMDL	ug/L	9.72	10	01/31/18 3:52	BEH	

Preliminary Results: Not Approved

ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0118
Date Received: 1/3/2018

Sample Number: 175415-01
Description: grab

Collection Date: 01/03/2018 9:30
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.
TTO-624 and 625								
2-Chloronaphthalene	EPA 625	BMDL	ug/L	8.51	10	01/31/18 3:52	BEH	
4-chlorophenyl-phenyl ether	EPA 625	BMDL	ug/L	8.74	10	01/31/18 3:52	BEH	
Chrysene	EPA 625	BMDL	ug/L	6.18	10	01/31/18 3:52	BEH	
Di-n-butyl phthalate	EPA 625	BMDL	ug/L	9.91	10	01/31/18 3:52	BEH	
Di-n-octyl phthalate	EPA 625	BMDL	ug/L	9.91	10	01/31/18 3:52	BEH	
Dibenzo [a,h] anthracene	EPA 625	BMDL	ug/L	5.36	10	01/31/18 3:52	BEH	O5
1,2-Dichlorobenzene	EPA 625	BMDL	ug/L	9.87	10	01/31/18 3:52	BEH	
1,4-Dichlorobenzene	EPA 625	BMDL	ug/L	9.49	10	01/31/18 3:52	BEH	
3,3-Dichlorobenzidine	EPA 625	BMDL	ug/L	7.41	20	01/31/18 3:52	BEH	O5
Diethyl phthalate	EPA 625	BMDL	ug/L	7.8	10	01/31/18 3:52	BEH	
Dimethlyl phthalate	EPA 625	BMDL	ug/L	8.83	10	01/31/18 3:52	BEH	
Fluoranthene	EPA 625	BMDL	ug/L	7.84	10	01/31/18 3:52	BEH	
Fluorene	EPA 625	BMDL	ug/L	8.01	10	01/31/18 3:52	BEH	
Hexachlorobenzene	EPA 625	BMDL	ug/L	7.27	10	01/31/18 3:52	BEH	
Hexachlorobutadiene	EPA 625	BMDL	ug/L	9.18	10	01/31/18 3:52	BEH	
Hexachlorocyclopentadiene	EPA 625	BMDL	ug/L	9.46	10	01/31/18 3:52	BEH	O5
Hexachloroethane	EPA 625	BMDL	ug/L	9.62	10	01/31/18 3:52	BEH	
Indeno [1,2,3-cd] pyrene	EPA 625	BMDL	ug/L	4.94	10	01/31/18 3:52	BEH	O5
Isophorone	EPA 625	BMDL	ug/L	8.7	10	01/31/18 3:52	BEH	
Naphthalene	EPA 625	BMDL	ug/L	6.84	10	01/31/18 3:52	BEH	
2,6-Dinitrotoluene	EPA 625	BMDL	ug/L	8.54	10	01/31/18 3:52	BEH	
Nitrobenzene	EPA 625	BMDL	ug/L	6.92	10	01/31/18 3:52	BEH	
N-nitroso-di-methylamine	EPA 625	BMDL	ug/L	4.91	10	01/31/18 3:52	BEH	
N-nitroso-di-phenylamine	EPA 625	BMDL	ug/L	9.15	10	01/31/18 3:52	BEH	
n-nitrosodi-n-propylamine	EPA 625	BMDL	ug/L	7.28	10	01/31/18 3:52	BEH	
Phenanthrene	EPA 625	BMDL	ug/L	8.27	10	01/31/18 3:52	BEH	
Pyrene	EPA 625	BMDL	ug/L	7.8	10	01/31/18 3:52	BEH	
1,2,4-trichlorobenzene	EPA 625	BMDL	ug/L	9.94	10	01/31/18 3:52	BEH	
2,4-Dinitrotoluene	EPA 625	BMDL	ug/L	8.1	10	01/31/18 3:52	BEH	

Preliminary Results: Not Approved

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Laboratory Report

Andalusia Utilities Board
Mike Kelley
Riverside WWTP
P.O. Box 790
Andalusia, AL 36420

Report Number: 14-0118
Date Received: 1/3/2018

Sample Number: 175415-01
Description: grab

Collection Date: 01/03/2018 9:30
Location: effluent PP

Test	Method	Result	Units	MDL	PQL	Date / Time	Analyst	Qual.

TTO-624 and 625

Surrogate	Recovery %	Target Range
4-Bromofluorobenzene	94.2	90-110
toluene-d8	96.2	90-110
1,2-Dichloroethane-d4	93.4	88-119
p-Terphenyl-d14	77.4	18-137
2,4,6-Tribromophenol	54.0	19-124
2-Fluorobiphenyl	74.3	26-115
Nitrobenzene-d5	70.5	15-120
phenol-d5	60.5	18-113
2-Fluorophenol	69.7	10-121

Preliminary Results: Not Approved

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For 624: The mid-range calibration point of 60ug/L was deleted out of the calibration for several compounds due to poor recovery.

Oil & Grease: EPA-821-R-98-002, February 1999.

State of Florida, NELAC Certification #E87542

Std. Methods for the Exam. Of Water and Wastewater, 20th Ed.

The BFB check failed for one or more masses.

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These results meet all of the requirements of the NELAC standard.

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N81 = The % recovery of the digested mid-range check standard was not within 90-110% as specified by the method.

N9 = The second source standard recovery was not +/- 10% as specified by the method.

MDL: Method Detection Limit
PQL: Practical Quantitation Limit

_____ _____
, Date

This person may be contacted for questions at the number listed above.

Preliminary Results: Not Approved

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

February 02, 2018

Erin Consuegra

,

RE: Project: Andalusia WWTP
Pace Project No.: 35370853

Dear Erin Consuegra:
Enclosed are the analytical results for sample(s) received by the laboratory on January 30, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Amy Atkins
amy.atkins@pacelabs.com
(813) 881-9401
Project Manager

Enclosures

Pace Analytical
www.pacelabs.com

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

CERTIFICATIONS

Project: Andalusia WWTP
Pace Project No.: 35370853

Tampa Certification IDs
110 South Bayview Blvd., Tampa, FL 34677
Florida Certification #:E84129
Alabama Certification #: 41560
Georgia Certification #: 949
Georgia Certification #: #949
Maine DHHS/CDC FL00237
Maine Certification #: 2015035
New Hampshire Certification #: 2955

Pace Analytical
www.pacelabs.com

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

SAMPLE SUMMARY

Project: Andalusia WWTP
Pace Project No.: 35370853

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35370853001	175014-01	Water	01/03/18 10:00	01/30/18 11:50

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

SAMPLE ANALYTE COUNT

Project: Andalusia WWTP
Pace Project No.: 35370853

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35370853001	175014-01	EPA 1631E	NMT	1	PASI-Tp

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
110 South Bayview Blvd
Oldsmar , FL 34677
(813)881-9401

ANALYTICAL RESULTS

Project: Andalusia WWTP
Pace Project No.: 35370853

Sample: 175014-01 **Lab ID: 35370853001** Collected: 01/03/18 10:00 Received: 01/30/18 11:50 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
1631E Mercury,Low Level Tampa	Analytical Method: EPA 1631E Preparation Method: EPA 1631E								
Mercury	**6.82**	ng/L	0.50	0.25	1	01/31/18 15:09	02/01/18 19:57	7439-97-6	J(M1)

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

QUALITY CONTROL DATA

Project: Andalusia WWTP
Pace Project No.: 35370853

QC Batch: 422639 Analysis Method: EPA 1631E
QC Batch Method: EPA 1631E Analysis Description: 1631E Mercury,Low Level
Associated Lab Samples: 35370853001

METHOD BLANK: 2300548 Matrix: Water
Associated Lab Samples: 35370853001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.25 U	0.50	0.25	02/01/18 18:27	

METHOD BLANK: 2300549 Matrix: Water
Associated Lab Samples: 35370853001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.25 U	0.50	0.25	02/01/18 18:32	

METHOD BLANK: 2300550 Matrix: Water
Associated Lab Samples: 35370853001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ng/L	0.25 U	0.50	0.25	02/01/18 18:37	

LABORATORY CONTROL SAMPLE: 2300551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ng/L	5	4.96	99	77-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2300552 2300553

Parameter	Units	35370468002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ng/L	0.25 U	.5	.5	0.557	0.668	91	113	71-125	18	24	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2300554 2300555

Parameter	Units	35370853001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ng/L	6.82	.5	.5	7.35	6.97	107	29	71-125	5	24	J(M1)

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

QUALIFIERS

Project: Andalusia WWTP
Pace Project No.: 35370853

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-Tp Pace Analytical Services - Tampa

ANALYTE QUALIFIERS

U	Compound was analyzed for but not detected.
J(M1)	Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical
www.pacelabs.com

Pace Analytical Services, LLC
110 South Bayview Blvd.
Oldsmar , FL 34677
(813)881-9401

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Andalusia WWTP
Pace Project No.: 35370853

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35370853001	175014-01	EPA 1631E	422639	EPA 1631E	423112

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
Date Required

Client: Andalusia WWTP
Project: 14-0118

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #

Sample No.	175014-01
Location	effluent IIHg
Collector	D. Weeks
Date/Time Sampled	1-3-18 1000

grab

WO#: 35370853

35370853

Sample	Preservation	Analysis	Preservation CK
-01a	None	subcontract IIHg	BG

~~did not receive this sample DD 010318~~

Sample	Preservation	Analysis	Preservation CK

Relinquished By: _____ Date/Time: _____ Received By: BG Date/Time: 01-03-18 1100

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Received at Lab By: BG Date/Time: 01-03-18 1630 Method of Transfer: ERA Arrival Temp (°C): 3.3 Custody Seals Intact: Y

Relinquished by D. Dobbins 010318 9:00 to UPS

UPS 1/30/18 1150 [signature] 1/30/18 1150 7.3 17.2

Pace Analytical Mobile Laboratory	Document Name: Sample Condition Upon Receipt Form	Document Revised: August 2, 2017
	Document No.: F-FL-C-007 rev. 12	Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project # WO#: 35370853

Project Manager: PM: ADA Due Date: 02/13/18

Client: CLIENT: 37-ENVRES

Date and Initials of person:
Examining contents: MVL
Label: 1/30/18
Deliver:
pH: N/A

Thermometer Used: T-203 Date: 1/30/18 Time: 1200 Initials: MVL

State of Origin: FL

Cooler #1 Temp.°C	17.2 (Visual)	0.0 (Correction Factor)	17.2 (Actual)	☐ Samples on ice, cooling process has begun
Cooler #2 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #3 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #4 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #5 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun
Cooler #6 Temp.°C	(Visual)	(Correction Factor)	(Actual)	☐ Samples on ice, cooling process has begun

Courier: ☐ Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☒ Ground ☐ International Priority ☐ Other

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☐ Credit Card ☐ Unknown

Tracking # 1Z 1E2 3R4 03 5487 8183

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No **Seals intact:** ☐ Yes ☐ No **Ice:** Wet Blue Dry (None)

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Samples shorted to lab (If Yes, complete) Shorted Date: Shorted Time: Qty:

		Comments:
Chain of Custody Present	☒Yes ☐ No ☐N/A	
Chain of Custody Filled Out	☒Yes ☐ No ☐N/A	
Relinquished Signature & Sampler Name COC	☒Yes ☐ No ☐N/A	
Samples Arrived within Hold Time	☒Yes ☐ No ☐N/A	
Rush TAT requested on COC	☐Yes ☒ No ☐N/A	
Sufficient Volume	☒Yes ☐ No ☐N/A	
Correct Containers Used	☒Yes ☐ No ☐N/A	
Containers Intact	☒Yes ☐ No ☐N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☐Yes ☒ No ☐N/A	No collection time
All containers needing acid/base preservation have been checked.	☐Yes ☐ No ☒N/A	Preservation Information:
All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates	☐Yes ☐ No ☒N/A	Preservative: Lot #/Trace #: Date: Time: Initials:
Headspace in VOA Vials? (>6mm):	☐Yes ☐ No ☒N/A	
Trip Blank Present:	☐Yes ☐ No ☒N/A	

Client Notification/ Resolution:
Person Contacted: Date/Time:

Comments/ Resolution (use back for additional comments):

Project Manager Review: Date:

Appendix 4
Toxicity Data

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:
NPDES PERMIT NO.: AL0055417 DSN: 001 COUNTY: Covington
Permittee: City of Andalusia
Facility Name: Riverside Wastewater Treatment Plant
Agent Submitting Report: Mrs. Donna Cross
Lab Conducting Toxicity Test(s): ERA, 2975 Brown Court, Auburn, AL 36830
Months To Test:
This Report for Toxicity Test(s) Required for the Month of: Aug
Scheduled Test(s): Yes _____ No X Accelerated Test(s): Yes _____ No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: ____-Hr Acute Screening: ____ ____-Hr Acute Definitive:
Short-term Chronic Screening: X Short-term Chronic Definitive:

	Test Organism: Ceriodaphnia dubia			**Test Organism:** Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	8/05/14 14:15	8/12/14 14:00	Yes	8/05/14 12:30	8/12/14 13:00	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	13%	PASS	N/A	PASS									
C.d.	13%	PASS	PASS	N/A									

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l	Cond µS
1			<0.05	7.34	139	46	<0.06	877
2			<0.05	7.67	159	42	<0.06	905
3			<0.05	7.25	166	42	<0.06	911

SAMPLE Id.	Arsenic µg/l	Cadmium µg/l	Chromium µg/l	Copper µg/l	Lead µg/l	Hex-Cr µg/l	Hard-Stream mg/l	
1								
SAMPLE Id.	**Mercury µg/l**	**Nickel µg/l**	**Silver µg/l**	**Zinc µg/l**	**CN µg/l**	**Others µg/l**	**Others µg/l**	
1						---	---	

Chemical Analyses Performed By (Lab): ERA
Total 24-Hour Flow: (1) 0.90 MGD (2) _____ MGD (3) _____ MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL: _____ DATE: 9/22/14

RECEIVED
OCT 24 2014
IND / MUN BRANCH

RECEIVED
OCT 22 2014
ADEM
EDDS

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:** 001 **DATE:** 8/05/14

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___ (Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No (Explain)

Receiving Water: Conecuh River

Design Flow: 2.84 (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	8/14/14 0646 - 8/15/14 0734	3.9	8/05/14 - 8/06/14
2	8/16/14 0707 - 8/17/14 0722	4.4	8/07/14 - 8/08/14
3	8/18/14 0707 - 8/19/14 0720	4.0	8/09/14 - 8/11/14

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries Hard.	Alk.	pH	Cond. @ °C.
MHRW	7/29/14	8/05/14	99	70	7.61	412 @ 25
MHRW	8/05/14	8/06/14	93	64	7.87	366 @ 25
MHRW	8/05/14	8/07/14	95	68	7.78	385 @ 25
MHRW	8/05/14	8/09/14	99	68	7.19	415 @ 25
MHRW	8/07/14	8/10/14	99	70	7.66	414 @ 25
MHRW	8/07/14	8/11/14	97	68	7.73	394 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)
P.p.	24-48 Hr	Florida Bioassay Supply	13 %
C.d.	6-14 hr	ERA	13 %

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	1	10

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	24.2 - 25.6	5.5 - 8.6	7.16 -7.97	75
C.d.	24.2 - 25.6	7.7 - 8.6	7.16 -7.97	75

7. FEEDING:

Not Fed: ___ Fed Daily: X Fed Irregular: ___ (Explain in Comments Below)

Brine Shrimp: Fed 0.15 g Suspension of Newly Hatched Larvae 2 Times Daily.

YCT: Fed 0.13 mL Suspension Containing 1.86 g/L TS Daily.

Algae: Fed 0.13 mL Suspension Containing 3.0×10^7 Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Riverside WWTP **NPDES #: AL**0055417 **DSN:**001 **DATE:** 8/05/14

8. REFERENCE TOXICANT TESTS:

TOXICANT: Sodium Chloride SOURCE: Fisher Scientific CAS#: 7647-14-5

Solution Concentration Unit: mg/L g/L X % ___ Other(specify)

Chronic:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)					
P.p.	8/05/14- 8/12/14	MHRW	0	2.0	4.0	6.0	8.0	10.0
C.d.	8/05/14- 8/12/14	MHRW	0	0.5	1.0	1.5	2.0	2.5

Test Org.	Endpoint	NOEC (g/L)	CUSUM Chart Control Limit	NUMBER (N)
P.p.	Survival	4.0	2.0 - 4.0	20
P.p.	Growth	4.0	2.0 - 4.0	20
C.d.	Survival	1.5	0.5 - 1.5	20
C.d.	Reproduction	1.0	0.25- 1.0	20

Data on File with ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

11.C CHRONIC SCREENING TOXICITY TESTS RESULTS (Freshwater):

TEST ORGANISM: Ceriodaphnai dubia

Were Neonates Used to Begin the Test Within 8 hours of the same age?: Yes

Did 60% of the CONTROL Females Produce Their Third Brood? YES: X NO:

SURVIVAL

CHRONIC TOXICITY INDICATED: YES ___ **NO** X

NO SURVIVAL STATISTICAL ANALYSIS NECESSARY: X

CONTROL(%) 24h 100 48h 100 End 100 EFFLUENT(%): 24h 100 48h 100 End 100

Fishers Exact Test: A = _____, B = _____, a = _____, b =

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:** 001 **DATE:** 8/05/14

REPRODUCTION (Average Neonates/Female)
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL: 24.2 EFFLUENT(%): 27.5
NO REPRODUCTION STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

TEST ORGANISM: Pimephales promelas
MORTALITY
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL(%) 24h 100 48h 100 7day 95 EFFLUENT(%): 24h 100 48h 100 7day 98
NO MORTALITY STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)

GROWTH - Mean Dry Weight (mg)
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL: 0.349 mg EFFLUENT: 0.348 mg
NO GROWTH STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☑ Standard
☐ Expedite (Addition Fees Apply)
8-04-14 Date Required

Client: Andalusia WWTP
Project: 14-0814

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample	Last Subsample	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	139151-01	comp	1@ 24 FOR HRS	6:46	7:34					
Location	effluent									
Collector	Robert DeLoach									
Date/Time Sampl	8-4-14									

Flow Rate (MGD) .90

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	ST	-01b	None	toxicity	~~None~~ SH

Relinquished By: Robert T. DeLoach Date/Time: 8-04-14 11:25 Received By: _____ Date/Time: 8/4/14 11:25
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: _____ Date/Time: 8/4/14 1430 Method of Transfer: ERA Arrival Temp (C): 3.9

2 CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Andalusia WWTP
Project: 14-0814

	G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
		Subsample Frequency	First Subsample	Last Subsample	Test	Analyst	Date/Time	Meter #	Probe #
Sample No. 139236-01									
Location effluent toxicity									
Collector DAT 7:22	comp								
Date/Time Sampl Robert J DeLoach									

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	BH	-01b	None	toxicity	BH

Relinquished By: Robert J DeLoach Date/Time: 8-6-14 7:22 Received By: Brent Heard Date/Time: 8-6-14 12:08
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: Brent Heard Date/Time: 8-6-14/17:25 Method of Transfer: ERA Arrival Temp (C): 4.4°

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Andalusia WWTP
Project: 14-0814

	G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
		Subsample Frequency	First Subsample	Last Subsample	Test	Analyst	Date/Time	Meter #	Probe #
Sample No. 139235-01	comp	Every hour 24 HRS.	7:07 8-7-14	7:20 8-08-14					
Location: effluent toxicity									
Collector: Robert DeLoach									
Date/Time Sampl: 8-08-14									

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	BH	-01b	None	toxicity	BH

Relinquished By: Robert DeLoach Date/Time: 8-08-14/10:50 Received By: Bert Heard Date/Time: 8-8-14/10:50
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: Bert Heard Date/Time: 8-8-14/14:45 Method of Transfer: ERA Arrival Temp (C): 4.0°

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Client: Andalusia

Test #: 65-40

Age of Test Organisms: 24-48 hrs

Ambient Laboratory Illumination

Water Volume: 250mL

Source: ABS Lot #: 662

Test Start Date: 08.05.14 Time: 12:30

Brine Shrimp Lot #: 25

Test End Date: 08.12.14 Time: 13:00

Photoperiod: 16hrs. L; 8hrs. D

CONTROL

for DO, pH, and temp. readings: old water/ new water

Test Day	Number Alive Replicate Number 1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	10	10	10	10	40	7.51	8.6	25.4	TCC ~~8:30~~ EJC 16:00	NA ~~EJC~~ 08.05.14 EJC	08.05.14 TCC EJC 12:30	YSI 2 #2	AB15 3 #14	2800	773237 #1	N
1	10	10	10	10	40	7.75 / 7.61	8.3 / 8.1	25.0 / 24.8	TCC 8:15 16:00	TCC	08/06/14 14:00 TCC			2802		N
2	10	10	10	10	40	7.23 / 7.16	8.4 / 8.3	25.2 / 25.1	TCC 8:15 16:00	TCC	08/07/14 13:20 TCC			2803		N
3	10	10	10	10	40	7.39 / 7.51	8.1 / 8.2	24.8 / 25.1	8:00 WT 16:00	WT	8/8/14 14:00 WT			2803		N
4	10	9	10	10	39	7.51 / 7.64	8.2 / 8.3	24.9 / 25.1	SH 8:15 SH 15:00	SH	8/9/14 11:00 SH			2804		N
5	10	9	10	10	39	7.58 / 7.63	8.0 / 8.3	25.0 / 25.1	SH 8:00 WT 14:00	WT	8/10/14 11:00 SH			2805		N
6	10	9	9	10	38	7.65 / 7.61	5.5 / 8.0	25.6 / 24.2	8:15 16:00	EJ	08.11.14 12:00 EJ			2806		N
7	10	9	9	10	38	7.63	6.9 081214 EJC	25.1	N/A	N/A	08.12.14 13:00 EJC			N/A		N

Observations Key

OS = On Surface
ON = On Bottom
PRE = Precipitate
LETH = Lethargic
ERR = Erratic Swimming
UM = Undissolved Material
N = Normal
FC = Flared Carapace
CO = Caught On
F = Film
PM = Particulate Matter
N/A = Not Applicable
CLDY = Cloudy

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Test #: 065-40 **Client:** Andalusia

3.5 **% Effluent** **Sample #s: 1)** 139151 **2)** 139236 **3)** 139235

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	Obs.	pH of 100% effluent
Start	10	10	10	10	40	7.76	7.7	25.3	TCC 16:00 Eff	N/A	08.05.14 TCC Eff 12:35	N	7.32
1	10	10	10	10	40	7.80 / 7.90	8.2 / 8.4	24.9 / 25.2	TCC 8:15 16:00	TCC	08/06/14 14:05 TCC	N	7.40
2	10	9	10	10	39	7.52 / 7.48	8.4 / 8.5	25.3 / 25.0	TCC 8:15 16:00	TCC	08/07/14 13:25 TCC	N	7.27
3	10	9	10	10	39	7.64 / 7.68	8.3 / 8.3	25.0 / 25.0	8:00 16:00 WT	WT	8/8/14 14:05 WT	N	7.25
4	10	9	10	10	39	7.59 / 7.84	8.3 / 8.4	25.2 / 25.1	SH 8:15 SH 15:00	SH	8/9/14 11:05 SH	N	7.25
5	10	9	10	10	39	7.56 / 7.92	8.2 / 8.6	25.1 / 25.0	SH 8:00 WT 14:00	WT	8/10/14 11:05 WT	N	7.30
6	10	08/11/14 Eff 89	10	10	39	7.64 / 7.97	6.8 / 8.1	25.4 / 25.0	8:15 16:00	Eff	08.11.14 12:05 Eff	N	7.55
7	10	9	10	10	39	7.83	6.7	25.1	N/A	N/A	08.12.14 13:05 Eff	N	7.49

Observations Key

OS = On Surface	**LETH = Lethargic**	**N = Normal**	**CO = Caught On**	**N/A = Not Applicable**
ON = On Bottom	**ERR = Erratic Swimming**	**FC = Flared Carapace**	**F = Film**	**CLDY = Cloudy**
PRE = Precipitate	**UM = Undissolved Material**		**PM = Particulate Matter**	

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

DRY WEIGHT DETERMINATION FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Test #: 65- Analyst: EC + JF Balance #: AND #2

Date/Time in Oven: 8/12/14 14:30 Date/Time Out of Oven: 8/13/14 14:30 Oven Temp: 60° C

Concentration	Replicate #	Weight of Tin (g)	Weight of Tin Plus Dry Larvae (g)	Number of Larvae	Mean Dry Weight of Larvae (mg) n=10	Treatment Mean (mg)
Blank	1	1.28891	1.28892	N/A	N/A	N/A
Control	1	1.29791	1.30125	10	0.334	0.349
	2	1.30183	1.30515	9	0.332	
	3	1.29875	1.30216	9	0.341	
	4	1.30602	1.31089	10	0.387	
3.5 % Effluent	1	1.29786	1.30158	10	0.372	0.348
	2	1.29111	1.29423	9	0.312	
	3	1.29454	1.29804	10	0.350	
	4	1.29983	1.30341	10	0.358	

Environmental Resource Analysts, Inc.

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Client: Andalusia

Test #: 65-40 **Age of Test Organisms:** 6-14 hrs **Ambient Laboratory Illumination**

Water Volume: 20mL **Source:** ERA **Photoperiod:** 16hrs. L; 8hrs. D

YCT Lot #: 227 1.86 g/L solids 0.13 mL fed per cup **Test Start Date:** 08.05.14 **Time:** 14:15

Algae Lot #: 227 3×10^7 cells/mL 0.13 mL algae fed/cup **Test End Date:** 08.12.14 **Time:** 14:00

CONTROL **for DO, pH, and temp. readings: old water/ new water**

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Chan	Date/ Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.51	8.6	25.4	TCC EQ	N/A	08.05.14 TCC 14:15	YSI 2 #2	AB15 3 #14	2800	773237 #1	N
1	1	1	1	1	1	1	1	1	1	1	10	7.70 / 7.61	8.4 / 8.1	24.9 / 24.8	TCC	TCC	08/06/14 11:00 TCC			2802		N
2	1	1	1	1	1	1	1	1	1	1	10	7.55 / 7.16	8.4 / 8.3	25.5 / 25.1	TCC	TCC	08/07/14 11:00 TCC			2803		N
3	1/4	1/10	1/4	1/2	1/5	1/4	1/4	1/8	1/1	1/7	10	7.42 / 7.51	8.0 / 8.2	25.3 / 25.1	TCC	TCC	08/08/14 09:00 TCC			2803		N
4	1	1	1	1	1	1	1	1	1	1	10	7.62 / 7.64	8.2 / 8.3	25.2 / 25.2	SH	SH	8/9/14 12:15 SH			2804		N
5	1/3	1/11	1/3	1/6	1/14	1/7	1/11	1/11	1/9	1/8	10	7.70 / 7.63	8.3 / 8.3	25.2 / 25.1	SH	SH	8/10/14 12:20 SH			2805		N
6	1	1	1	1	1	1	1	1	1	1	10	7.73 / 7.61	8.1 / 8.0	25.4 / 24.2	EQ	EQ	08.11.14 13:30 EQ			2806		N
7	1/13	1/9	1/7	1/8	1/14	1/6	1/12	1/3	1/6	1/21	10	7.86 / N/A	8.0 / N/A	24.9 / N/A	NA	NA	08.12.14 14:00 EQ			N/A		
8																						
Neonates	20	30	24	17	33	17	27	22	16	36					N/A	N/A						

Observations Key

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

ON = On Bottom ERR = Erratic Swimming FC = Flared Carapace F = Film CLDY = Cloudy

PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates/female
24.2

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Test #: 065 **Client:** Andalusia

3.5 **% Effluent** **Sample #s: 1)**_____ **2)**_____ **3)**_____

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/ Time/ Initials	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.76	7.7	25.3	TCC Eq	N/A	08.05.14 TCC Eq 14:20	N
1	1	1	1	1	1	1	1	1	1	1	10	7.77 / 7.90	8.2 / 8.4	25.0 / 24.8	TCC	TCC	08/06/14 11:05 TCC	N
2	1	1	1	1	1	1	1	1	1	1	10	7.61 / 7.48	8.6 / 8.5	25.4 / 25.0	TCC	TCC	08/07/14 11:05 TCC	N
3	1/3	1/8	1/2	1/5	1/6	1/5	1/6	1/3	1/2	1/5	10	7.71 / 7.68	8.5 / 8.3	25.3 / 25.0	TCC	TCC	08/08/14 09:05 TCC	N
4	1	1	1	1	1	1	1	1	1	1	10	7.77 / 7.84	8.4 / 8.4	25.2 / 25.0	SH	SH	8/9/14 12:20 SH	N
5	1/6	1/11	1/5	1/4	1/10	1/21	1/9	1/13	1/8	1/8	10	7.84 / 7.92	8.5 / 8.6	25.1 / 25.0	SH	SH	8/10/14 12:25 SH	N
6	1	1	1	1	1	1	1	1	1	1	10	7.81 / 7.97	8.2 / 8.1	25.0 / 25.0	Eq	Eq	8.11.14 1340 Eq	N
7	1/21	1/6	1/7	1/12	1/15	1/15	1/14	1/16	1/6	1/21	10	7.85 / NA	8.2 / NA	24.9 / NA	NA	NA	08.12.14 14:05 Eq	N
8												/	/	/				
# Neonates	30	25	14	21	31	41	29	32	18	34					N/A	N/A		

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

ON = On Bottom ERR = Erratic Swimming FC = Flared Carapac F = Film CLDY = Cloudy

PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates per female
27.5

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

Toxicity Bench Sheet

Client: Andalusia

Sample	Collection Date/ Time	pH Analysis Date/ Time	Analyst	pH Meter/ Probe	pH Result	TRC Analysis Date/ Time	TRC Result (mg/L)
#1		08.04.14 15:45 Ep	Ep	AB15 3 #14	7.34	08.04.14 16:00 Ep	0.03
#2		08/06/14 17:00 TCC	TCC	AB153 #14	7.67	08/06/14 17:00 TCC	0.00
#3		8/8/14 17:00 SH	SH	AB15/3 #14	7.25	8/8/14 17:00 SH	0.00

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:
NPDES PERMIT NO.: AL0055417 DSN: 001 COUNTY: Covington
Permittee: City of Andalusia
Facility Name: Riverside Wastewater Treatment Plant
Agent Submitting Report: Mrs. Donna Cross
Lab Conducting Toxicity Test(s): ERA, 2975 Brown Court, Auburn, AL 36830
Months To Test:
This Report for Toxicity Test(s) Required for the Month of: Aug
Scheduled Test(s): Yes ____ No X Accelerated Test(s): Yes ____ No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: ____-Hr Acute Screening: ____ ____-Hr Acute Definitive:
Short-term Chronic Screening: X Short-term Chronic Definitive:

	Test Organism: Ceriodaphnia dubia			**Test Organism:** Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	08/18/15 13:00	08/25/15 11:00	Yes	08/18/15 15:30	08/25/15 13:30	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	3.5%	PASS	N/A	PASS									
C.d.	3.5%	PASS	PASS	N/A									

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l	Cond µS
1			0.720	7.48	157	49	<0.06	1060
2			<0.100	7.47	178	45	<0.06	1060
3			<0.100	7.68	166	49	<0.06	1050

Chemical Analyses Performed By (Lab): ERA
Total 24-Hour Flow: (1) 0.85 MGD (2) 0.91 MGD (3) 0.95 MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL:_____ DATE:

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:

NPDES PERMIT NO.: AL0055417 DSN: 001 COUNTY: Covington
Permittee: City of Andalusia
Facility Name: Riverside Wastewater Treatment Plant
Agent Submitting Report: Mrs. Donna Cross
Lab Conducting Toxicity Test(s): ERA, 2975 Brown Court, Auburn, AL 36830
Months To Test:
This Report for Toxicity Test(s) Required for the Month of: Aug
Scheduled Test(s): Yes _____ No X Accelerated Test(s): Yes _____ No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: ____-Hr Acute Screening: ____ ____-Hr Acute Definitive:
Short-term Chronic Screening: X Short-term Chronic Definitive:

	Test Organism: Ceriodaphnia dubia			**Test Organism:** Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	08/18/15 13:00	08/25/15 11:00	Yes	08/18/15 15:30	08/25/15 13:30	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	3.5%	PASS	N/A	PASS									
C.d.	3.5%	PASS	PASS	N/A									

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l	Cond µS
1			0.720	7.48	157	49	<0.06	1060
2			<0.100	7.47	178	45	<0.06	1060
3			<0.100	7.68	166	49	<0.06	1050

Chemical Analyses Performed By (Lab): ERA
Total 24-Hour Flow: (1) 0.85 MGD (2) 0.91 MGD (3) 0.95 MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL:_____ DATE:

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:** 001 **DATE:** 8/18/15

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___(Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No(Explain)

Receiving Water: Conecuh River

Design Flow: 2.84 (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	8/16/15 0800 - 8/17/15 0701	2.8	8/18/15 - 8/19/15
2	8/18/15 0640 - 8/19/15 0541	4.8	8/20/15 - 8/21/15
3	8/20/15 0645 - 8/21/15 0546	3.1	8/22/15 - 8/24/15

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries Hard.	Alk.	pH	Cond. @ °C.
MHRW	8/13/15	8/18/15	100	60	7.64	360 @ 25
MHRW	8/13/15	8/19/15	100	62	7.61	360 @ 25
MHRW	8/13/15	8/21/15	100	64	7.52	369 @ 25
MHRW	8/13/15	8/22/15	100	64	7.56	372 @ 25
MHRW	8/18/15	8/24/15	100	60	7.53	351 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)					
P.p.	24-48 Hr	Florida Bioassay Supply	3.5%					
C.d.	5-13 hr	ERA	3.5%					

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	1	10

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	24.4 - 25.5	7.0 - 8.8	7.47 -7.88	75
C.d.	24.4 - 25.3	8.0 - 8.8	7.59 -7.88	75

7. FEEDING:

Not Fed: ___ Fed Daily: X Fed Irregular: ___(Explain in Comments Below)
Brine Shrimp: Fed 0.15 g Suspension of Newly Hatched Larvae 2 Times Daily.
YCT: Fed 0.13 mL Suspension Containing 1.80 g/L TS Daily.
Algae: Fed 0.13 mL Suspension Containing 3.0 x 10^7 Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:**001 **DATE:** 8/18/15

8. REFERENCE TOXICANT TESTS:

TOXICANT: Sodium Chloride SOURCE: Fisher Scientific CAS#: 7647-14-5

Solution Concentration Unit: mg/L g/L X % ___ Other(specify)

Chronic:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)					
P.p.	8/11/15-08/18/15	MHRW	0	1.0	2.0	3.0	4.0	5.0	6.0
C.d.	8/04/15-08/11/15	MHRW	0	0.25	0.50	1.00	1.50	2.00	

Test Org.	Endpoint	NOEC (g/L)	CUSUM Chart Control Limit	NUMBER (N)
P.p.	Survival	2.0	2.0 - 4.0	20
P.p.	Growth	2.0	2.0 - 4.0	20
C.d.	Survival	1.5	0.5 - 1.5	20
C.d.	Reproduction	1.0	0.25 - 1.0	20

Data on File with ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

11.C CHRONIC SCREENING TOXICITY TESTS RESULTS (Freshwater):

TEST ORGANISM: Ceriodaphnai dubia

Were Neonates Used to Begin the Test Within 8 hours of the same age?: Yes

Did 60% of the CONTROL Females Produce Their Third Brood? YES: X NO:

SURVIVAL

CHRONIC TOXICITY INDICATED: YES ___ **NO** X

NO SURVIVAL STATISTICAL ANALYSIS NECESSARY: X

CONTROL(%) 24h 100 48h 100 End 100 EFFLUENT(%): 24h 100 48h 100 End 100

Fishers Exact Test: A = _____, B = _____, a = _____, b =

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:** 001 **DATE:** 8/18/15

REPRODUCTION (Average Neonates/Female)
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL: 24.9 EFFLUENT(%): 28.0
NO REPRODUCTION STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

TEST ORGANISM: Pimephales promelas
MORTALITY
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL(%) 24h 100 48h 100 7day 100 EFFLUENT(%): 24h 100 48h 100 7day 100
NO MORTALITY STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)

GROWTH - Mean Dry Weight (mg)
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL: 0.394 mg EFFLUENT: 0.404 mg
NO GROWTH STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Client: Andalusia

Test #: 65-41 **Age of Test Organisms:** 24-48 hrs **Ambient Laboratory Illumination**

Water Volume: 250mL **Source:** ABS **Lot #:** ABS 808

Test Start Date: 08.18.15 **Time:** 15:30 **Brine Shrimp Lot #:** 26

Test End Date: 08.25.15 **Time:** 13:30 **Photoperiod:** 16hrs. L; 8hrs. D

CONTROL for DO, pH, and temp. readings: old water/ new water

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	10	10	10	10	40	7.88	8.5	24.6	17:00	N/A	08.18.15 15:30 at	YS12 #2	AB153 #18	3053	773287 #1	N
1	10	10	10	10	40	7.57 / 7.84	7.0 / 8.3	24.5 / 24.7	08:00 / 16:00	at	08.19.15 14:30 at			3054		N
2	10	10	10	10	40	7.50 / 7.79	7.3 / 8.4	24.7 / 24.6	0800 / 1700	TH	8.20.15 1530 TH			3054		N
3	10	10	10	10	40	7.50 / 7.68	7.4 / 8.4	24.8 / 24.4	0800 / 1600	TH	8.21.15 1430 TH			3055		N
4	10	10	10	10	40	7.50 / 7.75	7.1 / 8.3	24.9 / 24.6	0900 / 1500	TH	8.22.15 1330 TH			3056		N
5	10	10	10	10	40	7.52 / 7.82	7.0 / 8.3	24.7 / 24.5	11:00 / 19:00	at	08.23.15 17:30 at			3AA1 8.23.15 B056		N
6	10	10	10	10	40	7.63 / 7.88	7.1 / 8.3	25.0 / 24.7	10:00 / 16:00	at	08.24.15 14:00 at			3057		N
7	10	10	10	10	40	7.56	7.3	25.1	N/A	N/A	08.25.15 13:30 at			N/A		N

Observations Key

OS = On Surface	LETH = Lethargic	N = Normal	CO = Caught On	N/A = Not Applicable
ON = On Bottom	ERR = Erratic Swimming	FC = Flared Carapace	F = Film	CLDY = Cloudy
PRE = Precipitate	UM = Undissolved Material		PM = Particulate Matter	

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Test #: 65 **Client:** Andalusia

3.5 **% Effluent** **Sample #s: 1)** 149583 **2)** 149582 **3)** 149584

Test Day	Number Alive Replicate Number 1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	Obs.	pH of 100% effluent
Start	10	10	10	10	40	7.70	8.6	24.4	17:00	N/A	08.18.15 15:40 at	N	7.48
1	10	10	10	10	40	7.51 / 7.74	7.0 / 8.5	24.8 / 24.6	08:00 / 16:00	at	08.19.15 14:40 at	N	7.75
2	10	10	10	10	40	7.52 / 7.70	7.2 / 8.2	24.7 / 24.5	0800 / 1700	TH	8.20.15 1540 TH	N	7.49
3	10	10	10	10	40	7.55 / 7.57	7.2 / 8.8	24.7 / 24.4	0800 / 1600	TH	8.21.15 1440 ~~8.21.15~~ TH	N	7.66
4	10	10	10	10	40	7.47 / 7.59	7.3 / 8.5	24.9 / 24.4	0900 / 1500	TH	8.22.15 1340 TH	N	7.68
5	10	10	10	10	40	7.54 / 7.73	7.1 / 8.2	25.5 / 24.7	11:00 / 19:00	at	08.23.15 17:40 at	N	7.73
6	10	10	10	10	40	7.68 / 7.81	7.2 / 8.5	24.9 / 24.4	10:00 / 16:00	at	08.24.15 14:10 at	N	7.85
7	10	10	10	10	40	7.74	7.4	25.0	N/A	N/A	08.25.15 13:40 at	N	7.89

Observations Key

OS = On Surface
ON = On Bottom
PRE = Precipitate
LETH = Lethargic
ERR = Erratic Swimming
UM = Undissolved Material
N = Normal
FC = Flared Carapace
CO = Caught On
F = Film
PM = Particulate Matter
N/A = Not Applicable
CLDY = Cloudy

ENVIRONMENTAL RESOURCE ANALYSTS, INC. **2975 BROWN CT.** **AUBURN, AL 36830** **(334) 502-3444**

DRY WEIGHT DETERMINATION FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Test #: 65-41 **Analyst:** JF **Balance #:** AND #2

Date/Time in Oven: 8/25/15 15:00 **Date/Time Out of Oven:** 8/26/15 15:00 **Oven Temp:** 60° C

Concentration	Replicate #	Weight of Tin (g)	Weight of Tin Plus Dry Larvae (g)	Number of Larvae	Mean Dry Weight of Larvae (mg) n=10	Treatment Mean (mg)
Blank	1	0.96684	0.96684	N/A	N/A	N/A
Control	1	0.97006	0.97391	10	0.385	0.394
	2	0.99890	1.00309	10	0.419	
	3	0.98803	0.99184	10	0.381	
	4	0.97953	0.98344	10	0.391	
3.5 % Effluent	1	0.99284	0.99738	10	0.454	0.404
	2	0.98967	0.99374	10	0.407	
	3	0.99706	1.00078	10	0.372	
	4	0.99168	0.99549	10	0.381	

Environmental Resource Analysts, Inc.

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☑ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Andalusia WWTP
Project: 14-0815

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	149583-01	comp	1 per Hr. 24 Hrs.	8-16-15 8:00	8-17-15 7:01					
Location	effluent									
Collector	Keith Pitman									
Date/Time Sampled	8-17-15 7:05									

Flow Rate (MGD) .85

Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	
-01b	None	toxicity	

Relinquis..ed By: Keith Pitman Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: _____ Date/Time: 8-18-15 1045 CST Method of Transfer: Fedex Arrival Temp (C): 2.8

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☑ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Andalusia WWTP
Project: 14-0815

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	149582-01	comp	1per Hr. 24Hrs	8-18-15 6:40	8-19-15 8:41					
Location	effluent									
Collector	Keith P. Hmar									
Date/Time Sampled	8-19-15 7:00									

Flow Rate (MGD) .91

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	BH	-01b	None	toxicity	BH

Relinquished By: Keith Patton Date/Time: 8-19-15/11:16 Received By: Brt Hew Date/Time: 8-19-15/11:16
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: Brt Hew Date/Time: 8-19-15/16:40 Method of Transfer: ERA Arrival Temp (C): 4.8°

CHAIN OF CUSTODY

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Date Required

Client: Andalusia WWTP
Project: 14-0815

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	149584-01	comp	1 per Hr.	8-20-15	8-21-15					
Location	effluent		24Hrs	6:45	5:46					
Collector	Keith Pitman									
Date/Time Sampled	8-21-15 7:15									

Flow Rate (MGD) .95

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness		-01b	None	toxicity	

Relinquished By: Keith Pitman Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Received at Lab By: _____ Date/Time: 8-22-15 1030CST Method of Transfer: Fedex Arrival Temp (C): 3.1

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Client: Andalusia

Test #: 65-41 **Age of Test Organisms:** 5-13 hrs **Ambient Laboratory Illumination**

Water Volume: 20mL **Source:** ERA **Photoperiod:** 16hrs. L; 8hrs. D

CT Lot #: 244 1.8 g/L solids 0.13 mL fed per cup **Test Start Date:** 08.18.15 **Time:** 13:00

lgae Lot #: 242 3x10^7 cells/mL 0.13 mL algae fed/cup **Test End Date:** 08.25.15 **Time:** 1100

CONTROL **for DO, pH, and temp. readings: old water/ new water**

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

est ay	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (°C)	Feed	Water Chan	Date/ Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
art	1	1	1	1	1	1	1	1	1	1	10	7.88	8.5	24.6	TH	NA	8.18.15 1300 TH	YSI2 #2	AD153 #18	3053	773237 #1	N
1	1	1	1	1	1	1	1	1	1	1	10	7.77 / 7.84	8.1 / 8.3	24.7 / 24.7	AT	AT	08.19.15 13:00 AT			3054		N
2	1	1	1	1	1	1	1	1	1	1	10	7.67 / 7.79	8.1 / 8.4	25.2 / 24.6	TH	TH	8.20.15 1300 TH			3054		N
3	1	1	1	1	1	1	1	1	1	1	10	7.67 / 7.68	8.1 / 8.4	25.3 / 24.4	TH	TH	8.21.15 1140 TH			3055		N
4	1/3	1/2	1/4	1/6	1/4	1/4	1/6	1/7	1/7	1/3	10	7.65 / 7.75	8.0 / 8.3	25.2 / 24.6	TH	TH	8.22.15 1100 TH			3056		N
5	1	1	1	1	1	1	1	1	1	1	10	7.83 / 7.82	8.1 / 8.3	25.1 / 24.5	AT	AT	08.23.15 15:00 AT			3056		N
6	1/9	1/6	1/8	1/7	1/6	1/9	1/9	1/7	1/8	1/10	10	7.87 / 7.88	8.0 / 8.3	25.0 / 24.7	AT	AT	08.24.15 12:30 AT			3057		N
7	1/14	1/13	1/8	1/11	1/6	1/17	1/13	1/15	1/12	1/15	10	7.71 / NA	8.0 / NA	25.3 / NA	NA	NA	8.25.15 1100 TH	↓	↓	NA	↓	N
8																						
on es	26	21	20	24	16	30	28	29	27	28					N/A	N/A						

Observations Key

S = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

N = On Bottom ERR = Erratic Swimming FC = Flared Carapace F = Film CLDY = Cloudy

RE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates/female
24.9

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Test #: 65-41 **Client:** Andalusia

3.5 **% Effluent** **Sample #s: 1)** 149583 **2)** 149582 **3)** 149584

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/ Time/ Initials	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.70	8.6	24.4	TH	NA	8.18.15 1310 TH	N
1	1	1	1	1	1	1	1	1	1	1	10	7.81 / 7.74	8.0 / 8.5	25.1 / 24.6	AT	AT	08.19.15 13:10 AT	N
2	1	1	1	1	1	1	1	1	1	1	10	7.69 / 7.70	8.1 / 8.2	25.1 / 24.5	TH	TH	8.20.15 1310 TH	N
3	1	1	1	1	1	1	1	1	1	1	10	7.66 / 7.57	8.1 / 8.9	25.2 / 24.4	TH	TH	8.21.15 1210 TH	N
4	1/4	1/4	1/6	1/4	1/1	1/2	1/6	1/3	1/5	1/2	10	7.69 / 7.59	8.1 / 8.5	25.1 / 24.4	TH	TH	8.22.15 1110 TH	N
5	1	1	1	1	1	1	1	1	1	1	10	7.84 / 7.73	8.0 / 8.2	25.2 / 24.7	AT	AT	08.23.15 15:10 AT	N
6	1/6	1/9	1/9	1/8	1/15	1/9	1/9	1/11	1/7	1/13	10	7.86 / 7.81	8.0 / 8.5	25.3 / 24.4	AT	AT	08.24.15 12:40 AT	N
7	1/14	1/8	1/15	1/17	1/15	1/21	1/14	1/16	1/10	1/16	10	7.86 / NA	8.0 / NA	25.2 / NA	NA	NA	8.25.15 1110 TH	N
8												/	/	/				
# Neonates	24	21	30	29	31	32	29	30	23	31					N/A	N/A		

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable
ON = On Bottom ERR = Erratic Swimming FC = Flared Carapac F = Film CLDY = Cloudy
PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates per female
28.0

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

Toxicity Bench Sheet

Client: Andalusia

Sample	pH Analysis Date/ Time	Analyst	pH Meter/ Probe	pH Result	TRC Analysis Date/ Time	TRC Result (mg/L)
#1	8.18.15 1130	TL	153 #18	7.48	8.18.15 1130	0.00
#2	08.19.15 1700	EL	1	7.47	08.19.15 1700	0.00
#3	8.22.15 1100	TL		7.68	8.22.15 1100	0.00

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:
NPDES PERMIT NO.: AL0055417 DSN: 001 COUNTY: Covington
Permittee: City of Andalusia
Facility Name: Riverside Wastewater Treatment Plant
Agent Submitting Report: Mrs. Donna Cross
Lab Conducting Toxicity Test(s): ERA, 2975 Brown Court, Auburn, AL 36830
Months To Test:
This Report for Toxicity Test(s) Required for the Month of: Aug
Scheduled Test(s): Yes _____ No X Accelerated Test(s): Yes _____ No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: ____-Hr Acute Screening: _____ ____-Hr Acute Definitive:
Short-term Chronic Screening: X Short-term Chronic Definitive:

	Test Organism: Ceriodaphnia dubia			**Test Organism:** Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	08/18/15 13:00	08/25/15 11:00	Yes	08/18/15 15:30	08/25/15 13:30	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	3.5%	PASS	N/A	PASS									
C.d.	3.5%	PASS	PASS	N/A									

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l	Cond µS
1			0.720	7.48	157	49	<0.06	1060
2			<0.100	7.47	178	45	<0.06	1060
3			<0.100	7.68	166	49	<0.06	1050

Chemical Analyses Performed By (Lab): ERA
Total 24-Hour Flow: (1) 0.85 MGD (2) 0.91 MGD (3) 0.95 MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL:_____ DATE:

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:** 001 **DATE:** 8/18/15

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___(Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No(Explain)

Receiving Water: Conecuh River

Design Flow: 2.84 (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	8/16/15 0800 - 8/17/15 0701	2.8	8/18/15 - 8/19/15
2	8/18/15 0640 - 8/19/15 0541	4.8	8/20/15 - 8/21/15
3	8/20/15 0645 - 8/21/15 0546	3.1	8/22/15 - 8/24/15

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries Hard.	Alk.	pH	Cond. @ °C.
MHRW	8/13/15	8/18/15	100	60	7.64	360 @ 25
MHRW	8/13/15	8/19/15	100	62	7.61	360 @ 25
MHRW	8/13/15	8/21/15	100	64	7.52	369 @ 25
MHRW	8/13/15	8/22/15	100	64	7.56	372 @ 25
MHRW	8/18/15	8/24/15	100	60	7.53	351 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)					
P.p.	24-48 Hr	Florida Bioassay Supply	3.5%					
C.d.	5-13 hr	ERA	3.5%					

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	1	10

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	24.4 - 25.5	7.0 - 8.8	7.47 -7.88	75
C.d.	24.4 - 25.3	8.0 - 8.8	7.59 -7.88	75

7. FEEDING:

Not Fed: ___ Fed Daily: X Fed Irregular: ___(Explain in Comments Below)

Brine Shrimp: Fed 0.15 g Suspension of Newly Hatched Larvae 2 Times Daily.

YCT: Fed 0.13 mL Suspension Containing 1.80 g/L TS Daily.

Algae: Fed 0.13 mL Suspension Containing 3.0×10^7 Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:**001 **DATE:** 8/18/15

8. REFERENCE TOXICANT TESTS:

TOXICANT: Sodium Chloride SOURCE: Fisher Scientific CAS#: 7647-14-5

Solution Concentration Unit: mg/L g/L X % Other(specify)

Chronic:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)					
P.p.	8/11/15-08/18/15	MHRW	0	1.0	2.0	3.0	4.0	5.0	6.0
C.d.	8/04/15-08/11/15	MHRW	0	0.25	0.50	1.00	1.50	2.00	

Test Org.	Endpoint	NOEC (g/L)	CUSUM Chart Control Limit	NUMBER (N)
P.p.	Survival	2.0	2.0 - 4.0	20
P.p.	Growth	2.0	2.0 - 4.0	20
C.d.	Survival	1.5	0.5 - 1.5	20
C.d.	Reproduction	1.0	0.25 - 1.0	20

Data on File with ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

11.C CHRONIC SCREENING TOXICITY TESTS RESULTS (Freshwater):

TEST ORGANISM: Ceriodaphnai dubia

Were Neonates Used to Begin the Test Within 8 hours of the same age?: Yes

Did 60% of the CONTROL Females Produce Their Third Brood? YES: X NO:

SURVIVAL

CHRONIC TOXICITY INDICATED: YES ___ **NO** X

NO SURVIVAL STATISTICAL ANALYSIS NECESSARY: X

CONTROL(%) 24h 100 48h 100 End 100 EFFLUENT(%): 24h 100 48h 100 End 100

Fishers Exact Test: A = _____, B = _____, a = _____, b =

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:**001 **DATE:** 8/18/15

REPRODUCTION (Average Neonates/Female)
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL: 24.9 EFFLUENT(%): 28.0
NO REPRODUCTION STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

TEST ORGANISM: Pimephales promelas
MORTALITY
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL(%) 24h 100 48h 100 7day 100 EFFLUENT(%): 24h 100 48h 100 7day 100
NO MORTALITY STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)

GROWTH - Mean Dry Weight (mg)
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL: 0.394 mg EFFLUENT: 0.404 mg
NO GROWTH STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Client: Andalusia

Test #: 65-41 **Age of Test Organisms:** 24-48 hrs **Ambient Laboratory Illumination**

Water Volume: 250mL **Source:** ABS **Lot #:** ABS 808

Test Start Date: 08.18.15 **Time:** 15:30 **Brine Shrimp Lot #:** 26

Test End Date: 08.25.15 **Time:** 13:30 **Photoperiod:** 16hrs. L; 8hrs. D

CONTROL for DO, pH, and temp. readings: old water/ new water

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	10	10	10	10	40	7.88	8.5	24.6	17:00	N/A	08.18.15 15:30 at	YS12 #2	AB153 #18	3053	773237 #1	N
1	10	10	10	10	40	7.57 / 7.84	7.0 / 8.3	24.5 / 24.7	08:00 / 16:00	at	08.19.15 14:30 at			3054		N
2	10	10	10	10	40	7.50 / 7.79	7.3 / 8.4	24.7 / 24.6	0800 / 1700	TH	8.20.15 1530 TH			3054		N
3	10	10	10	10	40	7.50 / 7.68	7.4 / 8.4	24.8 / 24.4	0800 / 1600	TH	8.21.15 1430 TH			3055		N
4	10	10	10	10	40	7.50 / 7.75	7.1 / 8.3	24.9 / 24.6	0900 / 1500	TH	8.22.15 1330 TH			3056		N
5	10	10	10	10	40	7.52 / 7.82	7.0 / 8.3	24.7 / 24.5	11:00 / 19:00	at	08.23.15 17:30 at			3AA18.23.15 3056		N
6	10	10	10	10	40	7.63 / 7.88	7.1 / 8.3	25.0 / 24.7	10:00 / 16:00	at	08.24.15 14:00 at			3057		N
7	10	10	10	10	40	7.56	7.3	25.1	N/A	N/A	08.25.15 13:30 at			N/A		N

Observations Key

OS = On Surface **LETH = Lethargic** **N = Normal** **CO = Caught On** **N/A = Not Applicable**
ON = On Bottom **ERR = Erratic Swimming** **FC = Flared Carapace** **F = Film** **CLDY = Cloudy**
PRE = Precipitate **UM = Undissolved Material** **PM = Particulate Matter**

ENVIRONMENTAL RESOURCE ANALYSTS, INC. **2975 BROWN CT.** **AUBURN, AL 36830** **(334) 502-3444**

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Test #: 65 **Client:** Andalusia

3.5 **% Effluent** **Sample #s: 1)** 149583 **2)** 149582 **3)** 149584

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	Obs.	pH of 100% effluent
Start	10	10	10	10	40	7.70	8.6	24.4	17:00	N/A	08.18.15 15:40 at	N	7.48
1	10	10	10	10	40	7.51 / 7.74	7.0 / 8.5	24.8 / 24.6	08:00 / 16:00	at	08.19.15 14:40 at	N	7.75
2	10	10	10	10	40	7.52 / 7.70	7.2 / 8.2	24.7 / 24.5	0800 / 1700	TH	8.20.15 1540 TH	N	7.49
3	10	10	10	10	40	7.55 / 7.57	7.2 / 8.8	24.7 / 24.4	0800 / 1600	TH	8.21.15 1440 ~~8.21.15~~ TH	N	7.66
4	10	10	10	10	40	7.47 / 7.59	7.3 / 8.5	24.9 / 24.4	0900 / 1500	TH	8.22.15 1340 TH	N	7.68
5	10	10	10	10	40	7.54 / 7.73	7.1 / 8.2	25.5 / 24.7	11:00 / 19:00	at	08.23.15 17:40 at	N	7.73
6	10	10	10	10	40	7.68 / 7.81	7.2 / 8.5	24.9 / 24.4	10:00 / 16:00	at	08.24.15 14:10 at	N	7.85
7	10	10	10	10	40	7.74	7.4	25.0	N/A	N/A	08.25.15 13:40 at	N	7.89

Observations Key

OS = On Surface **LETH = Lethargic** **N = Normal** **CO = Caught On** **N/A = Not Applicable**
ON = On Bottom **ERR = Erratic Swimming** **FC = Flared Carapace** **F = Film** **CLDY = Cloudy**
PRE = Precipitate **UM = Undissolved Material** **PM = Particulate Matter**

ENVIRONMENTAL RESOURCE ANALYSTS, INC. **2975 BROWN CT.** **AUBURN, AL 36830** **(334) 502-3444**

DRY WEIGHT DETERMINATION FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Test #: 65-41 **Analyst:** JF **Balance #:** AND #2

Date/Time in Oven: 8/25/15 15:00 **Date/Time Out of Oven:** 8/26/15 15:00 **Oven Temp:** 60° C

Concentration	Replicate #	Weight of Tin (g)	Weight of Tin Plus Dry Larvae (g)	Number of Larvae	Mean Dry Weight of Larvae (mg) n=10	Treatment Mean (mg)
Blank	1	0.96684	0.96684	N/A	N/A	N/A
Control	1	0.97006	0.97391	10	0.385	0.394
	2	0.99890	1.00309	10	0.419	
	3	0.98803	0.99184	10	0.381	
	4	0.97953	0.98344	10	0.391	
3.5 % Effluent	1	0.99284	0.99738	10	0.454	0.404
	2	0.98967	0.99374	10	0.407	
	3	0.99706	1.00078	10	0.372	
	4	0.99168	0.99549	10	0.381	

Environmental Resource Analysts, Inc.

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_____ Date Required

Client: Andalusia WWTP
Project: 14-0815

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	149583-01	comp	1 per Hr. 24 Hrs.	8-16-15 8:00	8-17-15 7:01					
Location	effluent									
Collector	Keith Pitman									
Date/Time Sampled	8-17-15 7:05									

Flow Rate (MGD) .85

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	JM	-01b	None	toxicity	JM

Relinquished By: Keith Pitman Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Received at Lab By: JM Date/Time: 8-18-15 1045 CST Method of Transfer: Fedex Arrival Temp (C): 2.8

CHAIN OF CUSTODY

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Tel. (334) 502-3444 Fax (334) 502-8888

☑ Standard
☐ Expedite (Addition Fees Apply)
______ Date Required

Client: Andalusia WWTP
Project: 14-0815

Sample No.	149582-01	G or C	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Location	effluent	comp	1 per Hr. 24 Hrs	8-18-15 6:40	8-19-15 5:41					
Collector	Keith Pittman									
Date/Time Sampled	8-19-15 7:00									

(Composite Sample(s): Subsample Frequency, First Subsample Date/Time, Last Subsample Date/Time; Analytical Measurements Taken By ERA: Test, Analyst, Date/Time, Meter #, Probe #)

Flow Rate (MGD) .91

Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	BH
-01b	None	toxicity	BH

Relinquished By: Keith Pittman Date/Time: 8-19-15/11:16 Received By: Bert Head Date/Time: 8-19-15/11:16
Relinquished By: ______ Date/Time: ______ Received By: ______ Date/Time: ______
Relinquished By: ______ Date/Time: ______

Received at Lab By: Bert Head Date/Time: 8-19-15/16:40 Method of Transfer: ERA Arrival Temp (C): 4.8°

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

~~Standard~~
Expedite (Addition Fees Apply)
_____ Date Required

Client: Andalusia WWTP
Project: 14-0815

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	149584-01	comp	1 per Hr. 24Hrs	8-20-15 6:45	8-21-15 5:46					
Location	effluent									
Collector	Keith P. Hines									
Date/Time Sampled	8-21-15 7:15									

Flow Rate (MGD) .95

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness		-01b	None	toxicity	

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Received at Lab By: _____ Date/Time: 8-22-15 1030 ~~AM~~ PM Method of Transfer: Fedex Arrival Temp (C): 3.1

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Client: Andalusia

Test #: 65-41 **Age of Test Organisms:** 5-13 hrs **Ambient Laboratory Illumination**

Water Volume: 20mL **Source:** ERA **Photoperiod:** 16hrs. L; 8hrs. D

CT Lot #: 244 1.8 g/L solids 0.13 mL fed per cup **Test Start Date:** 08.18.15 **Time:** 13:00

lgae Lot #: 242 3x10⁷ cells/mL 0.13 mL algae fed/cup **Test End Date:** 08.25.15 **Time:** 1100

CONTROL **for DO, pH, and temp. readings: old water/ new water**

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

est ay	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Chan	Date/ Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
art	1	1	1	1	1	1	1	1	1	1	10	7.88	8.5	24.6	TH	NA	8.18.15 1300 TH	Y512 #2	AB153 #18	3053	773237 #1	N
1	1	1	1	1	1	1	1	1	1	1	10	7.77 / 7.84	8.1 / 8.3	24.7 / 24.7	AT	AT	08.19.15 13:00 AT	|	|	3054	|	N
2	1	1	1	1	1	1	1	1	1	1	10	7.67 / 7.79	8.1 / 8.4	25.2 / 24.6	TH	TH	8.20.15 1300 TH	|	|	3054	|	N
3	1	1	1	1	1	1	1	1	1	1	10	7.67 / 7.68	8.1 / 8.4	25.3 / 24.4	TH	TH	8.21.15 1100 TH	|	|	3055	|	N
4	1/3	1/2	1/4	1/6	1/4	1/4	1/6	1/7	1/7	1/3	10	7.65 / 7.75	8.0 / 8.3	25.2 / 24.6	TH	TH	8.22.15 1100 TH	|	|	3056	|	N
5	1	1	1	1	1	1	1	1	1	1	10	7.83 / 7.82	8.1 / 8.3	25.1 / 24.5	AT	AT	08.23.15 15:00 AT	|	|	3056	|	N
6	1/9	1/6	1/8	1/7	1/6	1/9	1/9	1/7	1/8	1/10	10	7.87 / 7.88	8.0 / 8.3	25.0 / 24.7	AT	AT	08.2415 12:30 AT	|	|	3057	|	N
7	1/14	1/13	1/8	1/11	1/6	1/17	1/13	1/15	1/12	1/15	10	7.71 / NA	8.0 / NA	25.3 / NA	NA	NA	8.25.15 1100 TH	↓	↓	NA	↓	N
8																						
on es	26	21	20	24	16	30	28	29	27	28					N/A	N/A						

bservations Key

S = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

N = On Bottom ERR = Erratic Swimming FC = Flared Carapace F = Film CLDY = Cloudy

RE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates/fema
24.9

NVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Test #: 65 -41 **Client:** Andalusia

3.5 **% Effluent** **Sample #s: 1)** 149583 **2)** 149582 **3)** 149584

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/ Time/ Initials	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.70	8.6	24.4	TH	NA	8.18.15 1310 TH	N
1	1	1	1	1	1	1	1	1	1	1	10	7.81 / 7.74	8.0 / 8.5	25.1 / 24.6	AT	AT	08.19.15 13:10 AT	N
2	1	1	1	1	1	1	1	1	1	1	10	7.69 / 7.70	8.1 / 8.2	25.1 / 24.5	TH	TH	8.20.15 1310 TH	N
3	1	1	1	1	1	1	1	1	1	1	10	7.66 / 7.57	8.1 / 8.8	25.2 / 24.4	TH	TH	8.21.15 1210 TH	N
4	1/4	1/4	1/6	1/4	1/1	1/2	1/6	1/3	1/5	1/2	10	7.69 / 7.59	8.1 / 8.5	25.1 / 24.4	TH	TH	8.22.15 1110 TH	N
5	1	1	1	1	1	1	1	1	1	1	10	7.84 / 7.73	8.0 / 8.2	25.2 / 24.7	AT	AT	08.23.15 15:10 AT	N
6	1/6	1/9	1/9	1/8	1/15	1/9	1/9	1/11	1/8	1/13	10	7.86 / 7.81	8.0 / 8.5	25.3 / 24.4	AT	AT	08.24.15 12:40 AT	N
7	1/14	1/8	1/15	1/17	1/15	1/21	1/14	1/16	1/10	1/16	10	7.86 / NA	8.0 / NA	25.2 / NA	NA	NA	8.25.15 1110 TH	N
8												/	/	/				
# Neonates	24	21	30	29	31	32	29	30	23	31					N/A	N/A		

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

ON = On Bottom ERR = Erratic Swimming FC = Flared Carapac F = Film CLDY = Cloudy

PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates per female
28.0

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

Toxicity Bench Sheet

Client: Andalusia

Sample	pH Analysis Date/ Time	Analyst	pH Meter/ Probe	pH Result	TRC Analysis Date/ Time	TRC Result (mg/L)
#1	8.18.15 1130	TW	~~153~~ #18	7.48	8.18.15 1130	0.00
#2	08.19.15 1700	EL	1	7.47	08.19.15 1700	0.00
#3	8.22.15 1100	TW		7.68	8.22.15 1100	0.00

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:
NPDES PERMIT NO.: AL0055417 DSN: 001 COUNTY: Covington
Permittee: City of Andalusia
Facility Name: Riverside Wastewater Treatment Plant
Agent Submitting Report: ~~Mrs. Donna Cross~~ Mike Kelley
Lab Conducting Toxicity Test(s): ERA, 2975 Brown Court, Auburn, AL 36830
Months To Test:
This Report for Toxicity Test(s) Required for the Month of: Aug
Scheduled Test(s): Yes _____ No X Accelerated Test(s): Yes _____ No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: ____-Hr Acute Screening: ____ ____-Hr Acute Definitive:
Short-term Chronic Screening: X Short-term Chronic Definitive:

	Test Organism: Ceriodaphnia dubia			Test Organism: Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	8/16/16 16:00	8/23/16 14:00	Yes	8/16/15 16:00	8/23/16 14:00	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	3.5%	PASS	N/A	PASS									
C.d.	3.5%	PASS	PASS	N/A									

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l	Cond µS
1			<0.100	7.48	108	41	<0.06	838
2			<0.100	7.63	118	41	<0.06	878
3			<0.100	7.53	130	39	<0.06	915

Chemical Analyses Performed By (Lab): ERA
Total 24-Hour Flow: (1) 1.09 MGD (2) 1.11 MGD (3) 1.10 MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL: _____ DATE: 9/18/16

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:**001 **DATE:** 8/16/16

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___(Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No(Explain)

Receiving Water: Conecuh River

Design Flow: 2.84 (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	8/14/16 0800 - 8/15/16 0700	2.8	8/16/16 - 8/17/16
2	8/16/16 0730 - 8/17/16 0630	2.7	8/18/16 - 8/19/16
3	8/18/16 0800 - 8/19/16 0700	2.9	8/20/16 - 8/22/16

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries Hard.	Alk.	pH	Cond. @ °C.
MHRW	8/13/16	8/16/16	90	60	7.30	302 @ 25
MHRW	8/15/16	8/17/16	92	64	7.39	310 @ 25
MHRW	8/15/16	8/18/16	92	60	7.36	308 @ 25
MHRW	8/18/16	8/19/16	92	60	7.33	301 @ 25
MHRW	8/18/16	8/20/16	90	62	7.43	311 @ 25
MHRW	8/19/16	8/21/16	88	62	7.48	311 @ 25
MHRW	8/22/16	8/22/16	90	60	7.41	293 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)				
P.p.	24-48 Hr	Florida Bioassay Supply	3.5%				
C.d.	8-16 hr	ERA	3.5%				

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	1	10

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	24.6 - 25.3	6.8 - 8.9	7.30 -7.80	75
C.d.	24.4 - 25.3	6.9 - 8.9	7.35 -7.85	75

7. FEEDING:

Not Fed: ___ Fed Daily: X Fed Irregular: ___(Explain in Comments Below)

Brine Shrimp: Fed 0.15 g Suspension of Newly Hatched Larvae 2 Times Daily.

YCT: Fed 0.13 mL Suspension Containing 1.80 g/L TS Daily.

Algae: Fed 0.13 mL Suspension Containing 3.0×10^7 Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:** 001 **DATE:** 8/16/16

8. REFERENCE TOXICANT TESTS:

TOXICANT: Sodium Chloride SOURCE: Fisher Scientific CAS#: 7647-14-5

Solution Concentration Unit: mg/L ____ g/L X % ___ Other(specify)

Chronic:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)					
P.p.	08/09/16-08/15/16	MHRW	0	2.0	4.0	6.0	8.0	10.0
C.d.	08/09/16-08/15/16	MHRW	0	0.5	1.0	1.5	2.0	2.5

Test Org.	Endpoint	NOEC (g/L)	CUSUM Chart Control Limit	NUMBER (N)
P.p.	Survival	4.0	2.0 - 4.0	20
P.p.	Growth	6.0	2.0 - 4.0	20
C.d.	Survival	1.5	0.5 - 1.5	20
C.d.	Reproduction	0.5	0.25- 1.0	20

Data on File with ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

11.C CHRONIC SCREENING TOXICITY TESTS RESULTS (Freshwater):

TEST ORGANISM: Ceriodaphnai dubia

Were Neonates Used to Begin the Test Within 8 hours of the same age?: Yes

Did 60% of the CONTROL Females Produce Their Third Brood? YES: X NO:

SURVIVAL

CHRONIC TOXICITY INDICATED: YES ___ **NO** X

NO SURVIVAL STATISTICAL ANALYSIS NECESSARY: X

CONTROL(%) 24h 100 48h 100 End 100 EFFLUENT(%): 24h 100 48h 100 End 100

Fishers Exact Test: A = _____, B = _____, a = _____, b =

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:** 001 **DATE:** 8/16/16

REPRODUCTION (Average Neonates/Female)
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL: 26.2 EFFLUENT(%): 28.5
NO REPRODUCTION STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

TEST ORGANISM: Pimephales promelas
MORTALITY
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL(%) 24h 100 48h 100 7day 100 EFFLUENT(%): 24h 100 48h 100 7day 100
NO MORTALITY STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)

GROWTH - Mean Dry Weight (mg)
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL: 0.326 mg EFFLUENT: 0.382 mg
NO GROWTH STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Andalusia WWTP
Project: 14-0816

	Sample No.	Location	Collector	Date/Time Sampled	G or C	Composite Sample(s): Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Analytical Measurements Taken By ERA: Test	Analyst	Date/Time	Meter #	Probe #
	160228-01	effluent	D. Prestwood	8-15-16 0830	comp	1/hr	8/14 0800	8/15 0700					

Flow Rate (MGD) 1.09

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	pH<2 TS	-01b	None	toxicity	~~pH<2.0~~ TS

Relinquished By: _____ Date/Time: 8/15/16 1245 Received By: Taylor Stefo Date/Time: 8/15/16 12:45pm

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Received at Lab By: Taylor Stefo Date/Time: 8/15/16 1605 Method of Transfer: ~~EPA~~ Arrival Temp (C): 2.8

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Andalusia WWTP
Project: 14-0816

Sample No.	160753-01	G or C	Composite Sample(s) Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Analytical Measurements Taken By ERA: Test	Analyst	Date/Time	Meter #	Probe #
Location	effluent	comp	V/R	8/16 .0730	8/17 0630					
Collector	K. Pittman									
Date/Time Sampled	8-17-16									

Flow Rate (MGD) 1.11

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	BG	-01b	None	toxicity	BG

Relinquished By: Kelly Pittman Date/Time: 8-17-16 1300 Received By: BG Date/Time: 8-17-16 1300
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: BG Date/Time: 8-17-16 1850 Method of Transfer: ERA Arrival Temp (C): 2.7

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Andalusia WWTP
Project: 14-0816

		G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
			Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No.	160754-01	comp	1/hr	8/18 0800	8/19 0700					
Location	effluent									
Collector	D. Prestwood									
Date/Time Sampled	8-19-16 0905									

Flow Rate (MGD) 1.10

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	TS	-01b	None	toxicity	TS

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: 8/19/16 1130
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: _____ Date/Time: 8/19/16 1518 Method of Transfer: ERA Arrival Temp (C): 2.9

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Client: Andalusia

Test #: 65-42 **Age of Test Organisms:** 24-48 hrs **Ambient Laboratory Illumination**

Water Volume: 250mL **Source:** ABS **Lot #:** 741

Test Start Date: 08.16.16 **Time:** 16:00 **Brine Shrimp Lot #:** 27

Test End Date: 08.23.16 **Time:** 14:00 **Photoperiod:** 16hrs. L; 8hrs. D

CONTROL for DO, pH, and temp. readings: old water/ new water

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	10	10	10	10	40	7.62	8.6	24.6	18:00	N/A	08.16.16 16:00 Efc	YSI2 #2	AB153 #20	3243	773237 #1	N
1	10	10	10	10	40	7.50 / 7.59	7.7 / 8.7	25.2 / 24.6	09:00 / 17:30	AF	08.17.16 15:45 AF			3244		N
2	10	10	10	10	40	7.52 / 7.45	7.9 / 8.6	26.2 / 24.6	09:00 / 16:00	CP	08.18.16 14:00 CP			3245		N
3	10	10	10	10	40	7.66 / 7.76	8.4 / 8.7	25.1 / 24.7	08:00 / 14:00	CP	08.19.16 13:00 CP			3246		N
4	10	10	10	10	40	7.64 / 7.80	7.9 / 8.5	25.1 / 24.7	0900 / 1700	NG	08.20.16 1300 NG			3247		N
5	10	10	10	10	40	7.35 / 7.66	6.9 / 7.3	24.9 / 25.1	0900 / 1700	CP	08.21.16 14:00 CP			3248		N
6	10	10	10	10	40	7.54 / 7.65	7.0 / 8.4	25.3 / 24.6	08:30 / 16:00	AF	08.22.16 14:00 AF			3248		N
7	10	10	10	10	40	7.43	7.6	25.1	N/A	N/A	08.23.16 14:00 AF			N/A		N

Observations Key

OS = On Surface	LETH = Lethargic	N = Normal	CO = Caught On	N/A = Not Applicable
ON = On Bottom	ERR = Erratic Swimming	FC = Flared Carapace	F = Film	CLDY = Cloudy
PRE = Precipitate	UM = Undissolved Material		PM = Particulate Matter	

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Test #: 65-42 **Client:** Andalusia

3.5 **% Effluent** **Sample #s: 1)** 160228 **2)** 160753 **3)** 160754

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	Obs.	pH of 100% effluent
Start	10	10	10	10	40	7.68	8.9	24.9	18:00	N/A	08.16.16 16:10 EJC	N	7.81
1	10	10	10	10	40	7.46 / 7.70	7.3 / 8.6	25.3 / 24.7	09:00 / 17:30	AF	08.17.16 15:55 AF	N	7.85
2	10	10	10	10	40	7.61 / 7.67	7.5 / 8.2	25.2 / 24.7	09:00 / 16:00	CP	08.18.16 14:10 CP	N	7.80
3	10	10	10	10	40	7.69 / 7.80	8.4 / 8.8	25.3 / 24.8	08:00 / 14:00	CP	08.19.16 13:10 CP	N	7.72
4	10	10	10	10	40	7.61 / 7.71	6.9 / 8.3	25.3 / 24.9	0900 / 1700	NG	08.20.16 1310 NG	N	8.04
5	10	10	10	10	40	7.54 / 7.62	6.8 / 7.7	24.7 / 25.1	0900 / 1700	CP	08.21.16 14:10 CP	N	7.60
6	10	10	10	10	40	7.60 / 7.83	7.0 / 8.9	25.2 / 24.6	08:30 / 16:00	AF	08.22.16 14:10 AF	N	7.61
7	10	10	10	10	40	7.30	7.0	25.2	N/A	N/A	08.23.16 14:10 AF	N	7.64

Observations Key

OS = On Surface
ON = On Bottom
PRE = Precipitate
LETH = Lethargic
ERR = Erratic Swimming
UM = Undissolved Material
N = Normal
FC = Flared Carapace
CO = Caught On
F = Film
PM = Particulate Matter
N/A = Not Applicable
CLDY = Cloudy

ENVIRONMENTAL RESOURCE ANALYSTS, INC. **2975 BROWN CT. AUBURN, AL 36830** **(334) 502-3444**

DRY WEIGHT DETERMINATION FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Test #: 65-42 Analyst: AF Balance #: AND#2

Date/Time in Oven: 08-23-16 / 15:22 Date/Time Out of Oven: 08-24-16 15:22 Oven Temp: 60 C

Concentration	Replicate #	Weight of Tin (g)	Weight of Tin Plus Dry Larvae (g)	Number of Larvae	Mean Dry Weight of Larvae (mg) n=10	Treatment Mean (mg)
Blank	1	1.00585	1.00583	N/A	N/A	N/A
Control	1	1.01798	1.02148	10	0.350	0.326
	2	1.00977	1.01340	10	0.363	
	3	1.03219	1.03496	10	0.277	
	4	1.00195	1.00509	10	0.314	
3.5 % Effluent	1	0.98397	0.98769	10	0.372	0.382
	2	1.02048	1.02429	10	0.381	
	3	0.98278	0.98639	10	0.361	
	4	0.94663	0.95076	10	0.413	

Environmental Resource Analysts, Inc.

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Client: Andalusia

Test #: 05-42 **Age of Test Organisms:** 8-16 hrs **Ambient Laboratory Illumination**

Water Volume: 20mL **Source:** ERA **Photoperiod:** 16hrs. L; 8hrs. D

CT Lot #: 256 1.80 g/L solids 0.13 mL fed per cup **Test Start Date:** 08.16.16 **Time:** 16:00

lgae Lot #: 253 3x10⁷ cells/mL 0.13 mL algae fed/cup **Test End Date:** 08.23.16 **Time:** 14:00

CONTROL **for DO, pH, and temp. readings: old water/ new water**

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (°C)	Feed	Water Chan	Date/ Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.62	8.6	24.6	AF	N/A	08.16.16 16:00 AF	YS12 #2	AB153 #20	3243	T13237 #1	N
1	1	1	1	1	1	1	1	1	1	1	10	7.73 / 7.59	8.2 / 8.7	25.1 / 24.6	AF	AF	08.17.16 14:00 AF			3244		N
2	1	1	1	1	1	1	1	1	1	1	10	7.65 / 7.45	8.4 / 8.6	25.1 / 24.6	AF	AF	08.18.16 15:00 AF			3245		N
3	1	1	1	1	1	1	1	1	1	1	10	7.69 / 7.76	8.3 / 8.7	25.3 / 24.7	AF	AF	08.19.16 14:00 AF			3246		N
4	1/6	1/3	1/2	1/2	1/3	1/5	1/4	1/6	1/5	1/8	10	7.61 / 7.80	8.1 / 8.5	25.2 / 24.7	NG	NG	08.20.16 1425 NG			3247		N
5	1	1	1	1	1	1	1	1	1	1	10	7.35 / 7.66	6.9 / 7.3	24.7 / 25.1	CP	CP	08.21.16 1500 CP			3248		N
6	1/8	1/10	1/6	1/10	1/9	1/8	1/10	1/8	1/13	1/10	10	7.69 / 7.65	7.8 / 8.4	24.5 / 24.6	MR	MR	08.22.16 1400 MR			3249		N
7	1/11	1/13	1/13	1/11	1/12	1/14	1/13	1/15	1/11	1/13	10	7.69 / N/A	8.1 / N/A	25.3 / N/A	N/A	N/A	08.23.16 14:00 AF			N/A		N
8																						
Neonates	25	26	21	23	24	27	27	29	29	31					N/A	N/A						

Observations Key

= On Surface; N = On Bottom; RE = Precipitate; LETH = Lethargic; ERR = Erratic Swimming; UM = Undissolved Material; N = Normal; FC = Flared Carapace; CO = Caught On; F = Film; PM = Particulate Matter; N/A = Not Applicable; CLDY = Cloudy

Average # neonates/female
26.2

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Test #: 65-42 **Client:** Andalusia

3.5 **% Effluent** **Sample #s: 1)** 160228 **2)** 160753 **3)** 160754

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/ Time/ Initials	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.68	8.9	24.9	AF	NA	08.16.16 16:10 AF	N
1	1	1	1	1	1	1	1	1	1	1	10	7.70 / 7.70	8.1 / 8.6	25.0 / 24.7	AF	AF	08.17.16 14:10 AF	N
2	1	1	1	1	1	1	1	1	1	1	10	7.73 / 7.67	8.0 / 8.2	25.2 / 24.7	AF	AF	08.18.16 15:10 AF	N
3	1	1	1	1	1	1	1	1	1	1	10	7.71 / 7.80	8.1 / 8.8	25.1 / 24.8	AF	AF	08.19.16 14:10 AF	N
4	1/3	1/6	1/4	1/7	1/6	1/6	1/5	1/2	1/4	1/6	10	7.69 / 7.71	7.9 / 8.3	25.1 / 24.9	NG	NG	08.20.16 1435 NG	N
5	1	1	1	1	1	1	1		1	1	10	7.79 / 7.62	8.0 / 7.7	24.7 / 25.1	CP	CP	08.21.16 & 1510 CP	N
6	1/9	1/9	1/11	1/12	1/4	1/9	1/5	1/8	1/4	1/8	10	7.85 / 7.83	8.4 / 8.9	24.3 / 24.6	MR	MR	08.22.16 1410 MR	N
7	1/17	1/10	1/17	1/19	1/13	1/16	1/14	1/9	1/17	1/15	10	7.79 / N/A	8.3 / N/A	25.0 / N/A	N/A	N/A	08.23.16 14:10 AF	N
8												/	/	/				
# Neonates	29	25	32	38	23	31	24	29	25	29					N/A	N/A		

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

ON = On Bottom ERR = Erratic Swimming FC = Flared Carapac F = Film CLDY = Cloudy

PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates per female
28.5

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

Toxicity Bench Sheet

Client: Andalusia

Sample	pH Analysis Date/ Time	Analyst	pH Meter/ Probe	pH Result	TRC Analysis Date/ Time	TRC Result (mg/L)
#1	08.15.16 1630	AF	AB153 #20	7.48	08.15.16 1630	0.00
#2	08.17.16 17:20	AF		7.63	08.17.16 17:20	0.00
#3	08.19.16 16:00	AF		7.53	08.19.16 16:00	0.02

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
TOXICITY TEST REPORT SUMMARY

1. GENERAL:
NPDES PERMIT NO.: AL0055417 DSN: 001 COUNTY: Covington
Permittee: City of Andalusia
Facility Name: Riverside Wastewater Treatment Plant
Agent Submitting Report: Mrs. Donna Cross
Lab Conducting Toxicity Test(s): ERA, 2975 Brown Court, Auburn, AL 36830
Months To Test:
This Report for Toxicity Test(s) Required for the Month of: Aug
Scheduled Test(s): Yes _____ No X Accelerated Test(s): Yes _____ No X
Accelerated Test Number ___ of ___ For Failed Scheduled Test Date:
Test Type Required: ____-Hr Acute Screening: ____ ____-Hr Acute Definitive:
Short-term Chronic Screening: X Short-term Chronic Definitive:

	Test Organism: Ceriodaphnia dubia			Test Organism: Pimephales promelas		
Sam No.	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid	Date/Time Start MM/DD/YY HH:MM	Date/Time Ended MM/DD/YY HH:MM	Control Valid
1	8/01/17 16:00	8/08/17 18:00	Yes	8/01/17 18:00	8/08/17 16:00	Yes

2.A. SUMMARY OF RESULTS FOR SCREENING TESTS:

		Test Number											
Test	Eff.	(1)			(2)			(3)			(4)		
Org.	Conc	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow	Surv	Repr	Grow
P.p.	3.5%	PASS	N/A	PASS									
C.d.	3.5%	PASS	PASS	N/A									

3. LABORATORY ANALYSES OF UNDILUTED SAMPLES(S):

SAMPLE Id.	BOD5 mg/l	TSS mg/l	NH3 mg/l	pH su	Alk mg/l	Hard mg/l	TRC mg/l	Cond µS
1			0.416	7.72	116	59	<0.06	730
2			5.540	7.86	116	43	<0.06	657
3			0.164	7.87	118	47	<0.06	713

Chemical Analyses Performed By (Lab): ERA
Total 24-Hour Flow: (1) 1.58 MGD (2) 1.72 MGD (3) 1.55 MGD

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF RESPONSIBLE OFFICIAL: _____ DATE:

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:** 001 **DATE:** 8/01/17

4. SAMPLE COLLECTION:

Split Samples: N/A X Yes ___ (Explain) _____

Samples Collected as Specified in the NPDES Permit: Yes X No (Explain)

Receiving Water: Conecuh River

Design Flow: 2.84 (MGD)

Sample Id.	Sample(s) Collected MM/DD/YY HHMM - MM/DD/YY HHMM	Arrival Temp.°C.	Used in Test(s) MM/DD/YY - MM/DD/YY
1	7/30/17 0900 - 7/31/17 0800	3.6	8/01/17 - 8/02/17
2	8/01/17 0900 - 8/02/17 0800	3.1	8/03/17 - 8/04/17
3	8/03/17 0900 - 8/04/17 0800	3.0	8/05/17 - 8/07/17

5. CONTROL/DILUTION WATER:

Type	Prepared MM/DD/YY	Begin Use MM/DD/YY	Initial Water Chemistries Hard.	Alk.	pH	Cond. @ °C.
MHRW	7/26/17	8/01/17	88	70	7.09	412 @ 25
MHRW	8/01/17	8/02/17	86	64	7.32	312 @ 25
MHRW	8/01/17	8/04/17	84	60	7.14	310 @ 25
MHRW	8/06/17	8/07/17	90	60	6.94	290 @ 25

6. TOXICITY TEST INFORMATION:

Test Species	Organism Age	Organism Source	Test Solution Concentrations (%)					
P.p.	24-48 Hr	Florida Bioassay Supply	3.5%					
C.d.	8-16 hr	ERA	3.5%					

Test Species	Test Vessel Type	Vessel Vol.(mL)	Solution Vol.(mL)	Org./Test Vessel	Replicates Per Conc.
P.p.	plastic beaker	500	250	10	4
C.d.	plastic beaker	25	20	1	10

Test Species	Temp. Range (°C.)	D.O. Range (mg/L)	pH Range (su)	Light Intensity Average (ft.-c.)
P.p.	24.7 - 25.7	6.3 - 9.1	6.89 -7.82	75
C.d.	24.7 - 25.7	7.2 - 9.1	7.07 -7.82	75

7. FEEDING:

Not Fed: ___ Fed Daily: X Fed Irregular: ___ (Explain in Comments Below)

Brine Shrimp: Fed 0.15 g Suspension of Newly Hatched Larvae 2 Times Daily.

YCT: Fed 0.13 mL Suspension Containing 1.78 g/L TS Daily.

Algae: Fed 0.13 mL Suspension Containing 3.0×10^7 Algal Cells/mL Daily.

COMMENTS:

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:** 001 **DATE:** 8/01/17

8. REFERENCE TOXICANT TESTS:

TOXICANT: Sodium Chloride SOURCE: Fisher Scientific CAS#: 7647-14-5

Solution Concentration Unit: mg/L g/L X % Other(specify)

Chronic:

Test Org.	Test Date MM/DD - MM/DD	Control Water	Reference Test Solution Concentrations (Control to Highest Conc.)					
P.p.	08/01/17-08/08/17	MHRW	0	2.0	4.0	6.0	8.0	10.0
C.d.	08/01/17-08/08/17	MHRW	0	0.5	1.0	1.5	2.0	2.5

Test Org.	Endpoint	NOEC (g/L)	CUSUM Chart Control Limit	NUMBER (N)
P.p.	Survival	4.0	2.0 - 4.0	20
P.p.	Growth	4.0	2.0 - 4.0	20
C.d.	Survival	0.5	0.5 - 1.5	20
C.d.	Reproduction	0.5	0.25- 1.0	20

Data on File with ADEM Toxics Unit

9. TEST CONDITION VARIABILITY:

9.A. Deviations From Standard Test Conditions:

None

9.B. Test Solution Manipulations or Test Modifications:

None

10. REQUIRED REPORT ATTACHMENTS:

Attach Copies Of Chain-of-Custody Forms, Reference Toxicant Tests, And Raw Data (Bench Sheets) Pertaining To Physical, Chemical, And Biological Measurements For All Tests. Include Suspended, Interrupted, or Discontinued Toxicity Tests Data.

11.C CHRONIC SCREENING TOXICITY TESTS RESULTS (Freshwater):

TEST ORGANISM: Ceriodaphnai dubia

Were Neonates Used to Begin the Test Within 8 hours of the same age?: Yes

Did 60% of the CONTROL Females Produce Their Third Brood? YES: X NO:

SURVIVAL

CHRONIC TOXICITY INDICATED: YES NO X

NO SURVIVAL STATISTICAL ANALYSIS NECESSARY: X

CONTROL(%) 24h 100 48h 100 End 100 EFFLUENT(%): 24h 100 48h 100 End 100

Fishers Exact Test: A = _____, B = _____, a = _____, b =

FACILITY NAME: Riverside WWTP **NPDES #:** AL0055417 **DSN:**001 **DATE:** 8/01/17

REPRODUCTION (Average Neonates/Female)
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL: 24.1 EFFLUENT(%): 27.6
NO REPRODUCTION STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

TEST ORGANISM: Pimephales promelas
MORTALITY
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL(%) 24h 100 48h 100 7day 100 EFFLUENT(%): 24h 100 48h 100 7day 95
NO MORTALITY STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)

GROWTH - Mean Dry Weight (mg)
CHRONIC TOXICITY INDICATED: YES ___ **NO** X
CONTROL: 0.344 mg EFFLUENT: 0.353 mg
NO GROWTH STATISTICAL ANALYSIS NECESSARY: X
Normally Distributed: Yes ___ No
Test Statistic: _____ Critical Value: _____ (Parametric)
Equal Variance: ___ Unequal Variance:
F Statistic: _____ Critical F:
t Test Statistic: _____ *t* Test Critical Value:
Sample Rank Sum: _____ #Reps.: ___ Critical Rank Sum: _____ (Non-Parametric)
COMMENTS:

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
Date Required _____

Client: Andalusia WWTP
Project: 14-0817

		Composite Sample(s)			Analytical Measurements Taken By ERA				
	G or C	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
Sample No. 170429-01	comp	1/hr	7/30 0900	7/31 0800					
Location effluent									
Collector D. Kelley									
Date/Time Sampled 7-31-17 900									

Flow Rate (MGD) 1.58

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	ZM	-01b	None	toxicity	ZM

Relinquished By: _____ Date/Time: 07.31.17 1130 Received By: ZM Date/Time: 07.31.17 1130

Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____

Relinquished By: _____ Date/Time: _____

Received at Lab By: Zach Mu Date/Time: 07.31.17 1530 Method of Transfer: ERA Arrival Temp (C): 3.6

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
_____ Date Required

Client: Andalusia WWTP
Project: 14-0817

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #
comp	1/hr	8/1 0900	8/2 0800					

Sample No.	170431-01
Location	effluent
Collector	D. Kelley
Date/Time Sampled	8.2.17 0810

Flow Rate (MGD) 1.55

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	WW	-01b	None	toxicity	WW

Relinquished By: _____ Date/Time: 8.2.17 1250 Received By: WW Date/Time: 8/2/17 1050
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: WW Date/Time: 8/2/17 1545 Method of Transfer: ERA Arrival Temp (C): 3.0

CHAIN OF CUSTODY

ENVIRONMENTAL RESOURCE ANALYSTS, INC.
Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830
Tel. (334) 502-3444 Fax (334) 502-8888

☐ Standard
☐ Expedite (Addition Fees Apply)
Date Required _____

Client: Andalusia WWTP
Project: 14-0817

G or C	Composite Sample(s)			Analytical Measurements Taken By ERA				
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time	Test	Analyst	Date/Time	Meter #	Probe #

Sample No.	170430-01	comp	1/hr	8/3 0900	8/4 0820
Location	effluent				
Collector	D. Kelley				
Date/Time Sampled	8-4-17 0915				

Flow Rate (MGD) 1.72

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01a	None	Alkalinity, AMMONIA, Cond, Hardness	WW	-01b	None	toxicity	WW

Relinquished By: [signature] Date/Time: 8/4/17 1045 Received By: WW Date/Time: 8/4/17 1045
Relinquished By: _____ Date/Time: _____ Received By: _____ Date/Time: _____
Relinquished By: _____ Date/Time: _____

Received at Lab By: WW Date/Time: 8/4/17 1400 Method of Transfer: ERA Arrival Temp (C): 3.1°C

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Client: Anda/USIG

Test #: 65-43 **Age of Test Organisms:** 24-48hrs **Ambient Laboratory Illumination**

Water Volume: 250mL **Source:** ABS **Lot #:** 787

Test Start Date: 08-01-17 **Time:** 1800 **Brine Shrimp Lot #:** 28

Test End Date: 08-08-17 **Time:** 1600 **Photoperiod:** 16hrs. L; 8hrs. D

CONTROL for DO, pH, and temp. readings: old water/ new water

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (°C)	Feed	Water Change	Date/Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	10	10	10	10	40	7.69	8.5	24.8	1900	N/A	08-01-17 1800 SH	4S12 #2	AB153 #20	3425	T73 237 #11	N
1	10	10	10	10	40	7.49 / 7.76	7.9 / 8.7	25.9 / 24.7	0930 / 1750	AF	08-02-17 1700 AF			3426		N
2	10	10	10	10	40	7.36 / 7.65	7.1 / 8.8	25.7 / 24.7	0900 / 1700	ZM	08-03-17 1600 ZM			3426		N
3	10	10	10	10	40	6.89 / 7.61	7.0 / 8.6	25.7 / 24.7	0900 / 1700	ZM	08-04-17 1600 ZM			3427		N
4	10	10	10	10	40	7.02 / 7.51	7.1 / 8.3	25.4 / 25.3	0930 / 1940	AE	08-05-17 1900 AE			3427		N
5	10	10	10	10	40	6.98 / 7.46	7.3 / 8.4	25.3 / 25.2	0930 / 1940	AE	08-06-17 1900 AE			3427		N
6	10	10	10	10	40	7.27 / 7.65	7.2 / 8.6	25.4 / 24.6	0900 / 1700	SH	08-07-17 1600 SH			3428		N
7	10	10	10	10	40	7.48	7.6	25.6	N/A	N/A	08-08-17 1600 SH			N/A		N

Observations Key

OS = On Surface	LETH = Lethargic	N = Normal	CO = Caught On	N/A = Not Applicable
ON = On Bottom	ERR = Erratic Swimming	FC = Flared Carapace	F = Film	CLDY = Cloudy
PRE = Precipitate	UM = Undissolved Material		PM = Particulate Matter	

7 DAY FATHEAD MINNOW TOXICITY TEST - EPA METHOD 1000.0

Test #: 165-43 **Client:** Andalusia

3.5 **%-Effluent** **Sample #s: 1)** 170429 **2)** 170431 **3)** 170430

Number Alive
Replicate Number

Test Day	1	2	3	4	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/Time/ Initials	Obs.	pH of 100% effluent
Start	10	10	10	10	40	7.82	8.5	25.5	1900	N/A	08-01-17 1805 SH	N	7.97
1	10	10	10	10	40	7.53 / 7.66	7.2 / 9.1	25.7 / 25.6	0930 / 1750	AF	08.02.17 1705 AF	N	7.86
2	10	9	9	10	38	7.00 / 7.58	6.7 / 8.16	25.7 / 25.7	0900 / 1700	ZM	08.03.17 1605 ZM	N	7.83
3	10	9	9	10	38	~~6.30~~ 7.15 / 7.41	6.3 / 8.7	25.2 / 25.5	0900 / 1700	ZM	08.04.17 1605 ZM ~~AE~~	CLEO05717A N	7.87
4	10	9	9	10	38	7.17 / 7.30	6.4 / 8.16	25.3 / 25.6	0930 / 1940	AE	08.05.17 1905 AE	N	7.84
5	10	9	9	10	38	7.09 / 7.36	6.6 / 8.16	25.5 / 25.5	0930 / 1940	AE	08.06.17 1905 AE	N	7.82 / 8.1 AE08061717A
6	10	9	9	10	38	7.11 / 7.38	6.5 / 8.8	25.5 / 24.9	0900 / 1700	SH	08-07-17 1605 SH	N	7.81
7	10	9	9	10	38	7.50	7.3	25.6	N/A	N/A	08-08-17 1605 SH	N	7.45

Observations Key

OS = On Surface
ON = On Bottom
PRE = Precipitate
LETH = Lethargic
ERR = Erratic Swimming
UM = Undissolved Material
N = Normal
FC = Flared Carapace
CO = Caught On
F = Film
PM = Particulate Matter
N/A = Not Applicable
CLDY = Cloudy

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

DRY WEIGHT DETERMINATION FOR FATHEAD MINNOW LARVAL SURVIVAL AND GROWTH TEST

Test #: 65-43 Analyst: SH Balance #: AND #2

Date/Time in Oven: 08-08-17 1645 Date/Time Out of Oven: 08-09-17 1700 Oven Temp: 60° C

Concentration	Replicate #	Weight of Tin (g)	Weight of Tin Plus Dry Larvae (g)	Number of Larvae	Mean Dry Weight of Larvae (mg) n=10	Treatment Mean (mg)
Blank	1	1.00655	1.00656	N/A	N/A	N/A
Control	1	0.96778	0.97090	10	0.312	0.344
	2	1.01239	1.01579	10	0.340	
	3	1.01680	1.02036	10	0.356	
	4	0.97349	0.97717	10	0.368	
3.5 % Effluent	1	0.95074	0.95398	10	0.324	0.353
	2	1.00419	1.00729	9	0.310	
	3	1.00862	1.01252	9	0.390	
	4	1.00806	1.01197	10	0.391	

Environmental Resource Analysts, Inc.

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Client: Andalusia

Test #: 65-43 Age of Test Organisms: 8-16 hrs Ambient Laboratory Illumination

Water Volume: 20mL Source: ERA Photoperiod: 16hrs. L; 8hrs. D

YCT Lot #: 265 1.780 g/L solids 0.13 mL fed per cup Test Start Date: 08.01.17 Time: 1600

Algae Lot #: 263 3×10^7 cells/mL 0.13 mL algae fed/cup Test End Date: 08.08.17 Time: 1800

CONTROL for DO, pH, and temp. readings: old water/ new water

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Chan	Date/ Time/ Initials	DO Meter/ Probe	pH Meter/ Probe	MHRW Lot #	Thermometer ID	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.69	8.5	24.8	SH	N/A	08.01.17 1600 SH	USI2 #2	AB153 #20	3425	773 237+1	N
1	1	1	1	1	1	1	1	1	1	1	10	7.43 / 7.76	8.3 / 8.7	25.6 / 24.7	AF	AF	08.02.17 1800 AF			3426		N
2	1	1	1	1	1	1	1	1	1	1	10	7.37 / 7.65	8.2 / 8.8	25.6 / 24.7	ZM	ZM	08.03.17 1400 ZM			3426		N
3	1	1	1	1	1	1	1	1	1	1	10	7.07 / 7.61	7.4 / 8.6	25.7 / 24.7	ZM	ZM	08.04.17 1400 ZM			3427		N
4	1/4	1/3	1/5	1/5	1/6	1/4	1/4	1/3	1/5	1/4	10	7.24 / 7.51	7.5 / 8.3	25.4 / 25.3	AE	AE	08.05.17 1700 AE			3427		N
5	1	1	1	1	1/5	1/9	1/3	1	1	1	10	7.34 / 7.46	7.8 / 8.4	25.4 / 25.2	AE	AE	08.06.17 1700 AE			3427		N
6	1/10	1/4	1/8	1/10	1	1	1	1/6	1/8	1/6	10	7.41 / 7.65	8.0 / 8.6	25.4 / 24.6	AF	AF	08.07.17 1700 AF			3428		N
7	1/17	1/12	1/18	1/10	1/12	1/12	1/11	1/17	1/10	1/14	10	7.37 / N/A	7.9 / N/A	25.5 / N/A	N/A	N/A	08.08.17 1500 AF			N/A		N
8												/	/	/								
Neonates	27	19	31	25	23	25	18	26	23	24					N/A	N/A						

Observations Key

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

ON = On Bottom ERR = Erratic Swimming FC = Flared Carapace F = Film CLDY = Cloudy

PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates/female
24.1

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

3 BROOD CERIODAPHNIA TOXICITY TEST - EPA METHOD 1002.0

Test #: 605 -43 **Client:** Andalusia

3.5 **% Effluent** **Sample #s: 1)** 170429 **2)** 170431 **3)** 170430

1 = Alive, 0 = Dead, M = Male, / # = # neonates

Replicate Number (# Adults/ # Neonates)

Test Day	1	2	3	4	5	6	7	8	9	10	# Alive	pH	DO (mg/L)	Temp (° C)	Feed	Water Change	Date/ Time/ Initials	Obs
Start	1	1	1	1	1	1	1	1	1	1	10	7.82	8.5	25.5	SH	NA	08.01.17 1605 SH	N
1	1	1	1	1	1	1	1	1	1	1	10	7.64 / 7.66	8.1 / 9.1	25.6 / 25.6	AF	AF	08.02.17 1805 AF	N
2	1	1	1	1	1	1	1	1	1	1	10	7.21 / 7.58	7.5 / 8.6	25.7 / 25.7	ZM	ZM	08.03.17 1405 ZM	N
3	1	1	1	1	1	1	1	1	1	1	10	7.19 / 7.41	7.3 / 8.7	25.7 / 25.5	ZM	ZM	08.04.17 1405 ZM	N
4	1/2	1/3	1/5	1/6	1/2	1/2	1/6	1/2	1/6	1/5	10	7.10 / 7.30	7.2 / 8.6	25.7 / 25.6	AE	AE	08.05.17 1705 AE	N
5	1	1	1	1	1/7	1/7	1	1/9	1	1	10	7.11 / 7.36	7.2 / 8.6	25.6 / 25.5	AE	AE	08.06.17 1705 AE	N
6	1/8	1/10	1/11	1/12	1	1	1/5	1	1/9	1/6	10	7.26 / 7.38	7.5 / 8.8	25.5 / 24.9	AF	AF	08.07.17 1705 AF	N
7	1/15	1/18	1/13	1/13	1/18	1/17	1/11	1/17	1/14	1/17	10	7.19 / N/A	7.3 / N/A	25.4 / N/A	N/A	N/A	08.08.17 1805 AE	N
8												/	/	/				
# Neonates	25	31	29	31	27	26	22	28	29	28					N/A	N/A		

OS = On Surface LETH = Lethargic N = Normal CO = Caught On N/A = Not Applicable

ON = On Bottom ERR = Erratic Swimming FC = Flared Carapac F = Film CLDY = Cloudy

PRE = Precipitate UM = Undissolved Material PM = Particulate Matter

Average # neonates per female
27.6

ENVIRONMENTAL RESOURCE ANALYSTS, INC. 2975 BROWN CT. AUBURN, AL 36830 (334) 502-3444

Toxicity Bench Sheet

Client: Andalusia

Initial Sample Collection Date/Time	Sample	pH Analysis Date/ Time	Analyst	pH Meter/ Probe	pH Result	TRC Analysis Date/ Time	TRC Result (mg/L)
07.31.17 0800	#1	07.31.17 1535	AF	AB153 #20	7.72	07.31.17 1535	0.01
08.02.17 0800	#2	08.02.17 1700	AF		7.80	08.02.17 1700	0.02
08.04.17 0800	#3	08.04.17 1700	ZM		7.87	08.02.17 1700	0.05

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES INDIVIDUAL PERMIT APPLICATION
SUPPLEMENTARY INFORMATION FOR PUBLICLY-OWNED TREATMENT WORKS (POTW), OTHER TREATMENT WORKS TREATING DOMESTIC SEWAGE (TWTDS), AND PUBLIC WATER SUPPLY TREATMENT PLANTS

Instructions: This form should be used to submit the required supplementary information for an application for an NPDES individual permit for Publicly Owned Treatment Works (POTW) and other Treatment Works Treating Domestic Sewage (TWTDS). The completed application should be submitted to ADEM in duplicate. If insufficient space is available to address any item, please continue on an attached sheet of paper. Please mark "N A" in the appropriate box when an item is not applicable to the applicant. **Please type or print legibly in blue or black ink.** Mail the completed application to:

ADEM-Water Division
Municipal Section
P O Box 301463
Montgomery, AL 36130-1463

RECEIVED
APR 16 2018
IND / MUN BRANCH

PURPOSE OF THIS APPLICATION

- ☐ Initial Permit Application for New Facility*
- ☐ Modification of Existing Permit
- ☐ Revocation & Reissuance of Existing Permit
- ☐ Initial Permit Application for Existing Facility*
- ☒ Reissuance of Existing Permit

* *An application for participation in the ADEM's Electronic Environmental (E2) Reporting must be submitted to allow permittee to electronically submit reports as required.*

SECTION A – GENERAL INFORMATION

1. Facility Name: Riverside Wastewater Treatment Plant

   a. Operator Name: Utilities Board of the City of Andalusia

   b. Is the operator identified in A.1.a, the owner of the facility? ☒ Yes ☐ No
   If no, provide name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.

   c. Name of Permittee* if different than Operator: _____
   **Permittee will be responsible for compliance with the conditions of the permit*

2. NPDES Permit Number: AL 0055417 (Not applicable if initial permit application)

3. Facility Physical Location: **(Attach a map with location marked; street, route no. or other specific identifier)**
   Street: 21938 Rabren Road
   City: Andalusia County: Covington State: Alabama Zip: 36420
   Facility Location (Front Gate): Latitude: 31 18'31" Longitude: -86 31'56"

4. Facility Mailing Address: P O Box 790
   City: Andalusia County: Covington State: Alabama Zip: 36420

5. Responsible Official (as described on last page of this application):
   Name and Title: Mike Kelley, Wastewater Operations Manager
   Address: PO Box 790
   City: Andalusia State: Alabama Zip: 36420
   Phone Number: 334-222-8208 Email Address: mkelleycity@centurytel.net

6. Designated Facility/DMR Contact:

Name and Title: Mike Kelley, Wastewater Operations Manager

Phone Number: 334-222-8208 Email Address: mkelleycity@centurytel.net

7. Designated Emergency Contact:

Name and Title: Mike Kelley, Wastewater Operations Manager

Phone Number: 334-504-5256 Email Address: mkelleycity@centurytel.net

8. Please complete this section if the Applicant's business entity is a Proprietorship or Limited Liability Company (LLC) with a responsible official not listed in A.5.

Name and Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____ Email Address: _____

9. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State Environmental Permits presently held by the Applicant within the State of Alabama:

Permit Type	Permit Number	Held By
NPDES	AL0055417	Utilities Board of the City of Andalusia

10. Identify all Administrative Complaints, Notices of Violation, Directives, or Administrative Orders, Consent Decrees, or Litigation concerning water pollution or other permit violations, if any against the Applicant within the State of Alabama in the past five years (attach additional sheets if necessary):

Facility Name	Permit Number	Type of Action	Date of Action

SECTION B – WASTEWATER DISCHARGE INFORMATION

1. List the following historical monthly flow rates recorded for the past five years for each outfall:

Outfall No.	Highest Flow in Last 12 Months (MGD)	Highest Daily Flow (MGD)	Average Flow (MGD)
001-1	6.2	6.2	1.48

2. Attach a process flow schematic of the treatment process, including the size of each unit operation and sample collection locations.

3. Do you share an outfall with another facility? ☐ Yes ■ No (If no, continue to B.4)
For each shared outfall, provide the following:

Applicant's Outfall No.	Name of Other Permittee/Facility	NPDES Permit No.	Where is sample collected by Applicant?

4. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Current:	Flow Metering	■ Yes	☐ No	☐ N/A
	Sampling Equipment	■ Yes	☐ No	☐ N/A
Planned:	Flow Metering	☐ Yes	☐ No	■ N/A
	Sampling Equipment	☐ Yes	☐ No	■ N/A

If so, please attach a schematic diagram of the sewer system indicating the present or future location of this equipment and describe the equipment below:

5. Are any wastewater collection or treatment modifications or expansions planned during the next three years that could alter wastewater volumes or characteristics (Note: Permit Modification may be required)? ■ Yes ☐ No

Briefly describe these changes and any potential or anticipated effects on the wastewater quality and quantity: (Attach additional sheets if needed.)

System wide projects continue to reduce inflow and infiltration volumes

SECTION C – WASTE STORAGE AND DISPOSAL INFORMATION

Describe the location of all sites used for the storage of solids or liquids that have any potential for accidental discharge to a water of the state, either directly or indirectly via storm sewer, municipal sewer, municipal wastewater treatment plants, or other collection or distribution systems that are located at or operated by the subject existing or proposed NPDES- permitted facility. Indicate the location of any potential release areas and provide a map or detailed narrative description of the areas of concern as an attachment to this application:

Description of Waste	Description of Storage Location
Partially de-watered sludge	Geotubes in covered areas

Describe the location of any sites used for the ultimate disposal of solid or liquid waste materials or residuals (e.g. sludges) generated by any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*
Wasted Sludge	13,714	Contractor (Allied) transports to Coffee County Landfill

***Indicate any wastes disposed at an off-site treatment facility and any wastes that are disposed on-site**

SECTION D – INDUSTRIAL INDIRECT DISCHARGE CONTRIBUTORS

a. List the existing and proposed industrial source wastewater contributions to the municipal wastewater treatment system (Attach other sheets if necessary)

Company Name	Description of Industrial Wastewater	Existing or Proposed	Flow (MGD)	Subject to SID Permit?
Shaw Industries, Inc.	Wastewater from Yarn Processing	Existing	0.125	■ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No
				☐ Yes ☐ No

b. Are industrial wastewater contributions regulated via a locally approved sewer use ordinance? ■ Yes ☐ No
If yes, please attach a copy of the ordinance.

SECTION E – COASTAL ZONE INFORMATION

Is the discharge(s) located within the 10-foot elevation contour and within the limits of Mobile or Baldwin County? ☐ Yes ■ No
If yes, complete items E.1 – E.12 below:

		Yes	No
1.	Does the project require new construction?	☐	☐
2.	Will the project be a source of new air emissions?	☐	☐
3.	Does the project involve dredging and/or filling of a wetland area or water way?	☐	☐
	If Yes, has the Corps of Engineers (COE) permit been received?	☐	☐
	COE Project No. _____		
4.	Does the project involve wetlands and/or submersed grassbeds?	☐	☐
5.	Are oyster reefs located near the project site?	☐	☐
	If Yes, include a map showing project and discharge location with respect to oyster reefs		
6.	Does the project involve the site developement, construction and operation of an energy facility as defined in ADEM Admin. Code r. 335-8-1-.02(bb)?	☐	☐
7.	Does the project involve mitigation of shoreline or coastal area erosion?	☐	☐
8.	Does the project involve construction on beaches or dune areas?	☐	☐
9.	Will the project interfere with public access to coastal waters?	☐	☐
10.	Does the project lie within the 100-year floodplain?	☐	☐
11.	Does the project involve the registration, sale, use, or application of pesticides?	☐	☐
12.	Does the project propose or require construction of a new well or to alter an existing groundwater well to pump more than 50 gallons per day (GPD)?	☐	☐
	If yes, has the applicable permit for groundwater recovery or for groundwater well installation been obtained?	☐	☐

SECTION H– ENGINEERING REPORT/BMP PLAN REQUIREMENTS

Any Engineering Report or Best Management Practice (BMP) Plans required to be submitted to ADEM by the applicant must be in accordance with ADEM 335-6-6-.08(i) & (j).

SECTION I– RECEIVING WATERS

Outfall No.	Receiving Water(s)	303(d) Segment?	Included in TMDL?*
001-1	Conecuh River	☐ Yes ■ No	■ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No

*If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation:

(1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.);

(2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be submitted as available);

(3) Requested interim limitations, if applicable;

(4) Date of final compliance with the TMDL limitations; and,

(5) Any other additional information available to support requested compliance schedule.

SECTION J – APPLICATION CERTIFICATION

The information contained in this form must be certified by a responsible official as defined in ADEM Administrative Code r. 335-6-6-.09 "signatories to permit applications and reports" (see below).

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Signature of Responsible Official: _____ Date Signed: 4/9/18

Name and Title: Earl V. Johnson, Mayor

If the Responsible Official signing this application is not identified in Section A.5 or A.8, provide the following information:

Mailing Address: PO Box 429

City: Andalusia State: Alabama Zip: 36420

Phone Number: 334-222-3312 Email Address: _____

335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

(1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:

(a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;

(b) In the case of a partnership, by a general partner;

(c) In the case of a sole proprietorship, by the proprietor; or

(d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.

DIVISION 3. - INDUSTRIAL PRETREATMENT

Sec. 14-40. - Definitions.

Unless the context specifically indicates otherwise, the following terms, as used in this division, shall have the meanings respectively ascribed to them:

Act or *the act:* The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251 et seq.

Approval authority: The director of the state department of environmental management.

Authorized representative of industrial user: An authorized representative of an industrial user may be:

(1) A principal executive officer of at least the level of vice-president, if the industrial user is a corporation;

(2) A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively;

(3) A duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the indirect discharge originates.

Biochemical oxygen demand (BOD): The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure, five (5) days at twenty (20) degrees centigrade expressed in terms of weight and concentration (milligrams per liter (mg/l)).

Building sewer: A sewer conveying wastewater from the premises of a user to the POTW.

Categorical standards: National categorical pretreatment standards or pretreatment standard.

Control authority: The "approval authority," as defined hereinabove; or the manager if the city has an approved pretreatment program under the provision of 40 CFR 403.11.

Cooling water: The water discharged from any use such as air conditioning, cooling or refrigeration, or to which the only pollutant added is heat.

Direct discharge: The discharge of treated or untreated wastewater directly to the waters of the state.

Environmental protection agency or *EPA:* The U.S. Environmental Protection Agency, or where appropriate the term may also be used as a designation for the administrator or other duly authorized official of such agency.

Grab sample: A sample which is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and without consideration of time.

Holding tank waste: Any waste from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks, and vacuum-pump tank trucks.

Indirect discharge: The discharge or the introduction of nondomestic pollutants from any source regulated under section 307(b) or (c) of the act, (33 U.S.C. 1317), into the POTW (including holding tank waste discharged into the system).

Industrial user: A source of indirect discharge which does not constitute a "discharge of pollutants" under regulations issued pursuant to section 402, of the act (33 U.S.C. 1342).

Industrial wastewater discharge permit: As set forth in section 14-55.

Interference: The inhibition or disruption of the POTW treatment processes or operations which contributes to a violation of any requirement of the city's NPDES permit. The term includes prevention of sewage sludge use or disposal by the POTW in accordance with section 405 of the act (33 U.S.C. 1345) or any criteria, guidelines, or regulations developed pursuant to the Solid Waste Disposal Act (SWDA), the Clean Air Act, the Toxic Substances Control Act, or more stringent state criteria (including those contained in any state sludge management plan prepared pursuant to Title IV of SWDA) applicable to the method of disposal or use employed by the POTW.

Manager: The person designated by the city to manage the operation of the publicly owned treatment works and who is charged with certain duties and responsibilities by this division, or his duly authorized representative.

National categorical pretreatment standard or *pretreatment standard:* Any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307(b) and (c) of the act (33 U.S.C. 1347) which applies to a specific category of industrial users.

National pollution discharge elimination system permit or *NPDES permit:* A permit issued pursuant to section 402 of the act (33 U.S.C. 1342).

National prohibitive discharge standard or *prohibitive discharge standard:* Any regulation developed under the authority of section 307(b) of the act and 40 CFR, section 403.5.

New source: Any source, the construction of which is commenced after the publication of proposed regulations prescribing a section 307(c) (33 U.S.C. 1317) categorical pretreatment standard which will be applicable to such source, if such standard is thereafter promulgated within one hundred twenty (120) days of proposal in the federal register. Where the standard is promulgated later than one hundred twenty (120) days after proposal, a new source means any source, the construction of which is commenced after the date of promulgation of the standard.

Person: As defined in section 1-2, specifically including any individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns.

pH: The logarithm (base 10) of the reciprocal of the concentration of hydrogen ions expressed in grams per liter of solution.

Pollutant: Any dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or dismantled equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Pollution: The manmade or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.

Pretreatment or *treatment:* The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration may be obtained by physical, chemical or biological processes, or process changes by other means, except as prohibited by 40 CFR, section 403.6(d).

Pretreatment requirements: Any substantive or procedural requirement related to pretreatment, other than a national pretreatment standard imposed on an industrial user.

Publicly owned treatment works (POTW): A treatment works as defined by section 212 of the act (33 U.S.C. 1292), which is owned in this instance by the city. This definition includes any sewers that convey wastewater to the POTW treatment plant, but does not include pipes, sewers or other conveyances not connected to a facility providing treatment. For the purposes of this division, "POTW" shall also include any sewers that convey wastewaters to the POTW from persons outside the city who are, by contract or agreement with the city, users of the city's POTW.

Publicly owned treatment works treatment plant: That portion of the POTW designed to provide treatment to wastewater.

Significant industrial user: Any industrial user of the city's wastewater disposal system which has:

(1) A discharge flow of twenty-five thousand (25,000) gallons or more per average work day;

(2) A wasteload of forty-two (42) pounds of BOD or forty-six (46) pounds of TSS per average work day;

(3) A flow or wasteload greater than five (5) percent of the flow or wasteload in the city's wastewater treatment system receiving such flow;

(4) In such user's wastes toxic pollutants as defined pursuant to section 307 of the act or state statutes and rules; or

(5) Been found by the city, state department of environmental management or the U.S. Environmental Protection Agency (EPA) to have significant impact, either singly or in combination with other contributing industries, on the wastewater treatment system, the quality of sludge, the system's effluent quality, or air emissions generated by the system.

Standard industrial classification (SIC): A classification pursuant to the Standard Industrial Classification Manual issued by the Executive Office of the President, Office of Management and Budget, 1972.

Stormwater: Any flow occurring during or following any form of natural precipitation and resulting therefrom.

Total suspended solids: The total suspended matter that floats on the surface of, or is suspended in, water, wastewater or other liquids, and which is removable by laboratory filtering.

Toxic pollutant: Any pollutant or combination of pollutants listed as toxic in regulations promulgated by the administrator of the environmental protection agency under the provision of CWA section 307(a) or other acts.

User: Any person who contributes, causes or permits the contribution of wastewater into the city's POTW.

Wastewater: The liquid and water-carried industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions, together with any groundwater, surface water, and stormwater that may be present, whether treated or untreated, which is contributed into or permitted to enter the POTW.

Waters of the state: All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.

(Code 1968, § 19-36)

Sec. 14-41. - Abbreviations.

The following abbreviations shall have the designated meanings:

BOD	– Biochemical oxygen demand
CFR	– Code of federal regulations
COD	– Chemical oxygen demand
EPA	– Environmental Protection Agency
L	– Liter
Mg	– Milligrams
Mg/l	– Milligrams per liter
NPDES	– National pollutant discharge elimination system
POTW	– Publicly owned treatment works
SIC	– Standard industrial classification
SWDA	– Solid Waste Disposal Act, 42 U.S.C. 6901, et seq.
TSS	– Total suspended solids
USC	– United States Code

(Code 1968, § 13-[illegible])

Sec. 14-42. - Purpose and policy.

(a)

This division sets forth uniform requirements for direct and indirect contributors into the wastewater collection and treatment system for the city and enables the city to comply with all applicable state and federal laws required by the Clean Water Act of 1977 and the general pretreatment regulations (40 CFR Part 403).

(b)

The objectives of this division are to:

(1)

Prevent the introduction of pollutants into the municipal wastewater system which will interfere with the operation of the system or contaminate the resulting sludge;

(2)

Prevent the introduction of pollutants into the municipal wastewater system which will pass through the system, inadequately treated, into receiving waters or the atmosphere or otherwise be incompatible with the system;

(3)

Improve the opportunity to recycle and reclaim wastewaters and sludges from the system;

(4)

Provide for equitable distribution of the cost of the municipal wastewater system; and

(5)

Prevent the introduction of uncontaminated waters into the municipal sanitary sewer system.

(c)

This division provides for the regulation of direct and indirect contributors to the municipal wastewater system through the issuance of permits to certain nondomestic users and through enforcement of general requirements for the other users, authorizes monitoring and enforcement activities, requires user reporting, assumes that existing customers' capacity will not be preempted, and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.

(d)

This division shall apply to the city and to persons outside the city who are, by contract or agreement with the city, users of the city POTW. Except as otherwise provided herein, the manager of the city POTW shall administer, implement, and enforce the provisions of this division.

(Code 1985, § 19-151)

Sec. 14-43. - General discharge prohibitions.

(a)

No user shall contribute or cause to be contributed, directly or indirectly, any pollutant or wastewater which will interfere with the operation or performance of the POTW. These general prohibitions apply to all such users of a POTW whether or not the user is subject to national categorical pretreatment standards or any other national, state, or local pretreatment standards or requirements. A user may not contribute the following substances to any POTW:

(1)

Any liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be damaging in any other way to the POTW or to the operation of the POTW. At no time shall two (2) successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system) be more than five (5) percent nor any single reading over ten (10) percent of the lower explosive limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides and any other substances which the city, the state or EPA has notified the user is a fire hazard or a hazard to the system.

(2)

Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater treatment facilities such as, but not limited to: Grease, garbage with particles greater than one-half inch in any dimension, animal guts or tissue, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste- paper, wood, plastics, gas, tar, asphalt residues, residues from refining, or processing of fuel or lubricating oil, mud, or glass grinding or polishing wastes.

(3)

Any wastewater having a pH less than five-point-zero (5.0), unless the POTW is specifically designed to accommodate such wastewater, or wastewater having any other corrosive property capable of causing damage or hazard to structures, equipment and/or personnel of the POTW.

(4)

Any wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction with other pollutants, to damage or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the POTW, or to exceed the limitation set forth in a categorical pretreatment standard. A toxic pollutant shall include but not be limited to any pollutant identified pursuant to section 307(a) of the act.

(5)

Any noxious or malodorous liquids, gases, or solids which either singly or by interaction with other wastes are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for maintenance and repair.

(6)

Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case, shall a substance discharged to the POTW cause the POTW to be in noncompliance with sludge use or disposal criteria, guidelines or regulations developed under section 405 of the act; any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the solid waste disposal act, the clean air act, the toxic substances control act, or state criteria applicable to the sludge management method being used.

(7)

Any substance which will cause the POTW to violate its NPDES and/or state disposal system permit or the receiving water quality standards.

(8)

Any wastewater with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions.

(9)

Any wastewater having a temperature which will inhibit biological activity in the POTW treatment plant resulting in interference, but in no case wastewater with a temperature at the introduction into the POTW which exceeds forty (40) degrees centigrade (104°F) unless the POTW treatment plant is designed to accommodate such temperature.

(10)

Any pollutants, including oxygen demanding pollutants (BOD, etc.) released at a flow rate and/or pollutant concentration which a user knows or has reason to know will cause interference to the POTW. In no case shall a slug load have a flow rate or contain concentration or qualities of pollutants that

exceed for any time period longer than fifteen (15) minutes more than five (5) times the average twenty-four-hour concentration, quantities, or flow during normal operation.

(11)

Any wastewater containing any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the manager in compliance with applicable state or federal regulations.

(12)

Any wastewater which causes a hazard to human life or creates a public nuisance.

(b)

When the manager determines that a user is contributing to the POTW, any of the above-enumerated substances in such amounts as to interfere with the operation of the POTW, the manager shall: Advise the users of the impact of the contribution on the POTW; and develop effluent limitations for such user to correct the interference with the POTW.

(Code 1968, § 19-38)

Sec. 14-44. - Federal categorical pretreatment standards.

Upon the promulgation of the federal categorical pretreatment standards for a particular industrial subcategory, the federal standard, if more stringent than limitations imposed under this division for sources in that subcategory, shall immediately supersede the limitations imposed under this division. The manager shall notify all affected users of the applicable reporting requirements under 40 CFR, section 403.12.

(Code 1968, § 19-39)

Sec. 14-45. - Modification of federal categorical pretreatment standards.

Where the city's wastewater treatment system achieves consistent removal of pollutants limited by federal pretreatment standards, the city may apply to the approval authority for modification of specific limits in the federal pretreatment standards. "Consistent removal" shall mean reduction in the amount of pollutant or alteration of the nature of the pollutant by the wastewater treatment system to a less toxic or harmless state in the effluent which is achieved by the system in ninety-five (95) percent of the samples taken when measured according to the procedures set forth in section 403.7(c)(2) of (Title 40 of the code of federal regulations, part 403) "General Pretreatment Regulations for Existing and New Sources of Pollution" promulgated pursuant to the act. The city may then modify pollutant discharge limits in the federal pretreatment standards if requirements contained in 40 CFR, part 403, section 403.7 are fulfilled and prior approval from the approval authority is obtained.

(Code 1968, § 19-40)

Sec. 14-46. - Specific pollutant limitations.

(a)

The introduction into the POTW of waters or wastewaters containing constituents with concentrations in excess of those listed below shall be subject to review and approval by the city:

Constituent	*Concentration (mg/l)*
Biochemical oxygen demand	300
Total organic carbon	300
Total suspended solids	350
Total nitrogen (as N)	85
Oil and grease	150
Total phosphorus (as P)	20

(b)

When determined necessary by the city, the user shall provide at such user's expense the necessary pretreatment to reduce constituent levels to those listed above. Should the city elect to accept into the POTW waters or wastewaters with constituents exceeding the above concentrations, the user will be subject to applicable surcharges as specified in the city's schedule of rates and charges. The user shall also be subject to the inspection and monitoring requirements specified in sections 14-51 through 14-60 and 14-63 through 14-68

(Code 1968, § 19-41)

Sec. 14-47. - Uncontaminated waters.

No user shall introduce or cause to be introduced into the POTW any stormwater, groundwater, surface water, cooling water, roof drainage, condensate, unpolluted industrial process water, or other uncontaminated water.

(Code 1968, § 19-42)

Sec. 14-48. - State requirements.

State requirements and limitations on discharges shall apply in any case where they are more stringent than federal requirements and limitations or those in this division.

(Code 1968, § 19-43)

Sec. 14-49. - City's right of revision.

The city reserves the right to establish by ordinance more stringent limitations or requirements on discharges to the wastewater disposal system if deemed necessary to comply with the objectives presented in section 14-42.

(Code 1968, § 19-44)

Sec. 14-50. - Excessive discharge.

No user shall ever increase the use of process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the federal categorical pretreatment standards, or in any other pollutant-specific limitation developed by the city or state. (Comment: Dilution may be an acceptable means of complying with some of the prohibitions set forth in section 14-43, e.g. the pH prohibition).

(Code 1968, § 19-45)

Sec. 14-51. - Accidental discharge.

(a)

Providing protection: Each user shall provide protection from accidental discharge of prohibited materials or other substances regulated by this division. Facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the owner's or user's own cost and expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the city for review, and shall be approved by the city before construction of the facility. All then-existing users shall have completed such a plan within thirty (30) days after the effective date of the ordinance from which this section is derived. No user who commences contribution to the POTW after such effective date shall be permitted to introduce pollutants into the system until accidental discharge procedures have been approved by the city. Review and approval of such plans and operating procedures

shall not relieve the industrial user from the responsibility to modify the user's facility as necessary to meet the requirements of this division. In the case of an accidental discharge, it is the responsibility of the user to immediately telephone and notify the POTW of the incident. The notification shall include location of discharge, type of waste, concentration and volume, and corrective actions.

(b)

Written notice: Within five (5) days following an accidental discharge, the user shall submit to the manager a detailed written report describing the cause of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, fish kills, or any other damage to person or property; nor shall such notification relieve the user of any fines, civil penalties, or other liability which may be imposed by this division or other applicable law.

(c)

Notice to employees: A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees whom to call in the event of a dangerous discharge. Employers shall insure that all employees who may cause or suffer such a dangerous discharge to occur are advised of the emergency notification procedure.

(Code 1968, § 19-46)

Sec. 14-52. - Recovery costs.

It is the purpose of this chapter to provide for the recovery of costs from users of the city's wastewater disposal system for the implementation of the program established herein. The applicable charges or fees shall be set forth in the city's schedule of rates and charges.

(Code 1968, § 19-47)

Cross reference— *Rates and charges, § 14-30 et seq.*

Sec. 14-53. - Adoption of charges and fees.

The city may adopt charges and fees which may include:

(1)

Fees for reimbursement of costs of setting up and operating the city's pretreatment program;

(2)

Fees for monitoring, inspections and surveillance procedures;

(3)

Fees for reviewing accidental discharge procedures and construction;

(4)

Fees for permit applications;

(5)

Fees for filing appeals;

(6)

Fees for consistent removal (by the city) of pollutants otherwise subject to federal pretreatment standards;

(7)

Fees for treating water and/or wastewater containing constituents with concentrations in excess of those listed in section 14-46

(8)

Other fees as the city may deem necessary to carry out the requirements contained herein.

These fees relate solely to the matters covered by this division and are separate from all other fees chargeable by the city.

(Code 1968, § 19-48)

Cross reference *— Fees and charges, § 14-30 et seq.*

Sec. 14-54. - Industrial wastewater dischargers.

It shall be unlawful to discharge without a city permit to the POTW any wastewater except as authorized by the manager in accordance with the provisions of this division.

(Code 1968, § 19-49)

Sec. 14-55. - Industrial wastewater discharge permits required.

All significant users proposing to connect to or to contribute to the POTW shall obtain an industrial wastewater discharge permit before connecting to or contributing to the POTW. All then-existing significant users connected to or contributing to the POTW shall have obtained an industrial wastewater discharge permit within one hundred eighty (180) days after the effective date of the ordinance from which this section is derived.

(Code 1968, § 19-50)

Sec. 14-56. - Permit application.

Users required to obtain an industrial wastewater discharge permit shall complete and file with the city an application in the form prescribed by the city, and accompanied by a fee prescribed in the city's schedule of rates and charges. Then-existing users shall have applied for an industrial wastewater discharge permit within thirty (30) days after the effective date of the ordinance from which this section is derived, and proposed new users shall apply at least one hundred eighty (180) days prior to connecting to or contributing to the POTW.

The application will consist of the necessary forms for the program and additional technical information in the form of an engineering report bearing the seal and/or number of a professional engineer registered in the state. As a minimum, the application shall include the following:

(1)

Name, address, and location, (if different from the address), number of employees, products to be manufactured, rate of production, hours of operation, and water supply and disposition.

(2)

SIC number, as amended.

(3)

Wastewater constituents and characteristics including but not limited to those mentioned in sections 14-43 through 14-51 as determined by a reliable analytical laboratory; sampling and analysis shall be performed in accordance with procedures established by the EPA pursuant to section 304(g) of the act and contained in 40 CFR, part 136, as amended. The average and maximum of both quantity and characteristics of the wastewater shall be presented.

(4)

Time and duration of contribution, average daily and three-minute peak wastewater flow rates, constituent concentrations, including daily, monthly and seasonal variations if any.

(5)

Site plans, floor plans, mechanical and plumbing plans and details to show all sewers, sewer connections, and appurtenances by the size, location and elevation.

(6)

Narrative account of manufacturing operations explaining and/or defining raw materials, processes, and products. Blockline or schematic diagrams indicating points of waste origin and its collection and disposition shall be included.

(7)

When there are priority or toxic pollutants present, as defined by EPA, they shall be specifically characterized and quantified. The nature and concentration of any pollutants in the discharge which are limited by the city, state, or federal pretreatment standards and a statement regarding whether or not the pretreatment standards are being met on a consistent basis and if not, whether additional operation and maintenance (O&M) and/or additional

pretreatment is required for the user to meet applicable pretreatment standards.

(8)

Description of waste treatment facilities including preliminary design basis, pretreatment measures, and recovery systems. Means of handling cooling water, storm drainage, and sanitary wastes should be discussed. Containment systems for product storage areas, loading and intermediate, or raw material handling areas, process areas, and other areas with spill potential should be described. Where applicable, the availability of an SPCC plan should be indicated.

(9)

When treatment sludges are generated, dewatering handling and method and location of disposal shall be indicated. Quantity and analysis information shall also be furnished.

(10)

In the case of new or expanded treatment systems, copies of logs for test borings in the vicinity of treatment facilities of earthen construction shall be furnished to facilitate a geologic/hydrologic review.

(11)

New users shall provide a complete schedule for the construction of manufacturing and treatment facilities. If additional pretreatment and/or O&M will be required to meet the pretreatment standards, the shortest schedule by which the user will provide such additional pretreatment. The completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard. The following conditions shall apply to this schedule:

a.

The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards (e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.)

b.

No increment referred to in subparagraph "a" of this subsection (11) shall exceed nine (9) months.

c.

Not later than fourteen (14) days following each date in the schedule and the final date for compliance, the user shall submit a progress

report to the manager including, as a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps being taken by the user to return the construction to the schedule established. In no event shall more than nine (9) months elapse between such progress reports to the manager.

(12)

Any other information as may be deemed by the city to be necessary to evaluate the permit application. The city will evaluate the data furnished by the user and may require additional information. After evaluation and acceptance of the data furnished, the city may issue an industrial wastewater discharge permit subject to terms and conditions provided herein.

(Code 1968, § 19-51)

Sec. 14-57. - Form of industrial wastewater discharge permit application.

The form of the industrial wastewater discharge permit application shall be substantially as follows:

"To the City of Andalusia _____:

The undersigned being the _____ of the property located at _____ does hereby request a permit to _____ an industrial sewer connection serving _____, which, company is engaged in _____ at said location.

(1)

A plan to the property showing accurately all sewers and drains now existing is attached hereunto as Exhibit "A."

(2)

An engineering report in compliance with section 14-56 of the Code of Ordinances as Exhibit "B."

(3)

Plans and specifications covering any work proposed to be performed under this permit is attached hereunto as Exhibit "C."

(4)

The name and address of the person or firm who will perform the work covered by this permit is _____.

In consideration of granting of this permit the undersigned agrees:

(1)

To furnish any additional information relating to the installation or use of the industrial sewer for which this permit is sought as may be requested by the city.

(2)

To accept and abide by all provisions of the industrial treatment ordinance of the city, and of all other pertinent ordinances or regulations that may be adopted in the future.

(3)

Operate and maintain any waste pretreatment facilities, as may be required as a condition of the acceptance into the wastewater treatment system of the industrial wastes involved, in an efficient manner at all times, and at no expense to the city.

(4)

To cooperate at all times with the city and its representatives in their inspecting, sampling, and study of the industrial wastes, and any facilities provided for pretreatment.

(5)

To notify the city immediately in the event of any accident, or other occurrence that occasions contribution to the wastewater treatment system of any wastewater or substances prohibited or not covered by this permit.

Date: _____	Signed _____
	$_____ Application fee paid _____
Application approved and permit granted:	
Date: _____	Signed _____"

(Code 1966, § 19-71)

Sec. 14-58. - Permit modifications.

Within nine (9) months of the promulgation of a national categorical pretreatment standard, the industrial wastewater discharge permit of users subject to such standard shall be revised to require compliance with such standard within the time frame prescribed by such standard. Where a user, subject to a national categorical pretreatment standard, has not previously submitted an application for an industrial wastewater discharge permit as required by section 14-55, the user shall apply for an industrial wastewater discharge permit within one hundred eighty (180) days after the promulgation of the applicable national categorical pretreatment standard. In addition, the user with an existing industrial wastewater discharge permit shall submit to the manager within one hundred eighty (180) days after the

promulgation of an applicable federal categorical pretreatment standard the information required by subsections (7) and (11) of section 14-56.

(Code 1968, § 19-52)

Sec. 14-59. - Permit conditions.

Industrial wastewater discharge permits shall be expressly subject to all provisions of this division and all other applicable regulations, user charges and fees established by the city. Permits may contain the following:

(1) The unit charge or schedule of user charges and fees for the wastewater to be discharged to the POTW;

(2) Limits on the average and maximum wastewater constituents and characteristics;

(3) Limits on average and maximum rate and time of discharge or requirements for flow regulations and equalization;

(4) Requirements for installation and maintenance of inspection and sampling facilities;

(5) Specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types and standards for tests and reporting schedule;

(6) Compliance schedules;

(7) Requirements for submission of technical reports or discharge reports (see sections 14-51 through 14-60 and 14-63 through 14-68);

(8) Requirements for maintaining and retaining plant records relating to wastewater discharge as specified by the city, and affording city access thereto;

(9) Requirements for notification of the city of any new introduction of wastewater constituents or any substantial change in the volume or character of the wastewater constituents being introduced into the wastewater treatment system;

(10)

Requirements for notification of accidental discharges;

(11)

Other conditions as deemed appropriate by the city to ensure compliance with this division.

(Code 1968, § 19-53)

Sec. 14-60. - Permit duration.

Permits shall be issued for a specified time period, not to exceed five (5) years. A permit may be issued for a period of less than a year or may be stated to expire on a specific date. The user shall apply for permit reissuance a minimum of one hundred eighty (180) days prior to the expiration of the user's existing permit. The terms and conditions of the permit may be subject to modification by the city during the term of the permit as limitations or requirements, as identified in sections 14-43 through 14-51, are modified or other just cause exists. The user shall be informed of any proposed changes in the permit at least thirty (30) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

(Code 1968 § 19-54)

Sec. 14-61. - Permit transfer.

Industrial wastewater discharge permits are issued to a specific user for a specific operation. An industrial wastewater discharge permit shall not be reassigned or transferred or sold to a new owner, new user, different premises, or a new or changed operation without the approval of the city. Any succeeding owner or user shall also comply with the terms and conditions of the existing permit.

(Code 1968 § 19-55)

Sec. 14-62. - Revocation of permit.

Any user who violates the following conditions of this division, or applicable state and federal regulations, is subject to having such user's permit revoked in accordance with the procedures of this section and sections 14-69 through 14-72:

(1)

Failure of a user to factually report the wastewater constituents and characteristics of user's discharge;

(2)

Failure of the user to report significant changes in operations, or wastewater constituents and characteristics;

(3)

Refusal of reasonable access to the user's premises for the purpose of inspection or monitoring; or

(4)

Violation of conditions of the permit.

(Code 1968, § 19-63)

Sec. 14-63. - Compliance date report.

Within ninety (90) days following the date for final compliance with applicable pretreatment standards or, in the case of a new source, following commencement of the introduction of wastewater into the POTW, any user subject to pretreatment standards and requirements shall submit to the manager a report indicating the nature and concentration of all pollutants in the discharge from the regulated process which are limited by pretreatment standards and requirements and the average and maximum daily flow for these process units in the user facility which are limited by such pretreatment standards or requirements. The report shall state whether the applicable pretreatment standards or requirements are being met on a consistent basis and, if not, what additional O&M and/or pretreatment is necessary to bring the user into compliance with the applicable pretreatment standards or requirements. This statement shall be signed by an authorized representative of the industrial user, and certified to by a qualified professional.

(Code 1968, § 19-56)

Sec. 14-64. - Periodic compliance reports.

(a)

Any user subject to a pretreatment standard, after the compliance date of such pretreatment standard, or, in the case of a new source, after commencement of the discharge into the POTW, shall submit to the manager during the months of June and December, unless required more frequently in the pretreatment standard or by the manager, a report indicating the nature and concentration of pollutants in the effluent which are limited by such pretreatment standards. In addition, this report shall include a record of all daily flows which, during the reporting period, exceeded the average daily flow reported in subsection (2), section 14-59. At the discretion of the manager and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the manager may agree to alter the months during which the above reports are to be submitted.

(b)

The manager may impose mass limitations on users which are using dilution to meet applicable pretreatment standards or requirements, or in other cases where the imposition of mass limitations are appropriate. In such cases, the report required by subsection (a) of this section shall indicate the mass of pollutants regulated by pretreatment standards in the effluent of the user. These reports shall contain the

results of sampling and analysis of the discharge, including the flow and the nature and concentration, or production and mass where requested by the manager, of pollutants contained therein which are limited by the applicable pretreatment standards. The frequency of monitoring shall be prescribed in the applicable pretreatment standard. All analyses shall be performed in accordance with procedures established by the administrator pursuant to section 304(g) of the act and contained in 40 CFR, part 136 and amendments thereto or with any other test procedures approved by the administrator. Sampling shall be performed in accordance with the techniques approved by the administrator. (Comment: Where 40 CFR, part 136 does not include a sampling or analytical technique for the pollutant in question, sampling and analysis shall be performed in accordance with the procedures for screening of "Industrial Effluents for Priority Pollutants, April, 1977," and amendments thereto, or with any other sampling and analytical procedures approved by the administrator.)

(Code 1968, § 19-57)

Sec. 14-65. - Monitoring facilities.

(a)

The city shall require to be provided and operated at the user's own expense, monitoring facilities to allow inspection, sampling, and flow measurement of the building sewer and/or internal drainage systems. The monitoring facility should normally be situated on the user's premises, but the city may, when such a location would be impractical or cause undue hardship on the user, allow the facility to be constructed in the public street or sidewalk area and located so that it will not be obstructed by landscaping or parked vehicles.

(b)

There shall be ample room in or near such sampling manhole or facility to allow accurate sampling and preparation of samples for analysis. The facility, sampling, and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the user.

(c)

Whether constructed on public or private property, the sampling and monitoring facilities shall be provided in accordance with the city's requirements and all applicable local construction standards and specifications. Construction shall be completed within ninety (90) days following written notification by the city.

(Code 1968, § 19-58)

Sec. 14-66. - Inspection and sampling.

(a)

The city shall inspect the facilities of any user to ascertain whether the purpose and requirements of this division are being met.

(b)

Persons or occupants of premises where wastewater is created or discharged shall allow the city or their representative ready access at all reasonable times to all parts of the premises for the purpose of inspection, sampling, records examination or in the performance of any of their duties. The city, approval authority and EPA shall have the right to set up on the user's property such devices as are necessary to conduct sampling inspection, compliance monitoring and/or metering operations. Where a user has security measures in force which would require proper identification and clearance before entry into their premises, the user shall make necessary arrangements with their security guards so that upon presentation of suitable identification, personnel from the city, approval authority and EPA will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.

(Code 1968, § 19-59)

Sec. 14-67. - Pretreatment.

(a)

Users shall provide necessary wastewater treatment as required to comply with this division and shall achieve compliance with all federal categorical pretreatment standards within the time limitations as specified by the federal pretreatment regulations. Any facilities required to pretreat wastewater to a level acceptable to the city shall be provided, operated, and maintained at the user's expense. Detailed plans showing the pretreatment facilities and operating procedures shall be submitted to the city for review, and shall be acceptable to the city before construction of the facility. The review of such plans and operating procedures will in no way relieve the user from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the city under the provisions of this division. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and be acceptable to the city prior to the user's initiation of the changes. The city shall annually publish in the local newspaper a list of the users which were not in compliance with any pretreatment requirements or standards at least once during the twelve (12) previous months. The notification shall also summarize any enforcement actions taken against the users during the same twelve (12) months.

(b)

All records relating to compliance with pretreatment standards shall be made available to officials of the EPA or approval authority upon request.

(Code 1968, § 19-60)

Sec. 14-68. - Confidential information.

(a)

Information and data on a user obtained from reports, questionnaires, permit applications, permits and monitoring programs and from inspections shall be available to the public or other governmental agency without restriction unless the user specifically requests and is able to demonstrate to the satisfaction of the city that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the user.

(b)

When requested by the person furnishing a report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public, but shall be made available upon written request to governmental agencies for uses related to this division, the national pollutant discharge elimination system (NPDES) permit, state disposal system permit and/or the pretreatment programs; provided, however, that such portions of a report shall be available for use by the state or any state agency in judicial review or enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information.

(c)

Information accepted by the city as confidential shall not be transmitted to any governmental agency or to the general public by the city until and unless a ten-day notification is given to the user.

(Code 1968, § 19-61)

Sec. 14-69. - Harmful contributions.

(a)

The city may suspend the wastewater treatment service and/or an industrial wastewater discharge permit when such suspension is necessary, in the opinion of the city, in order to stop an actual or threatened discharge which presents or may present an imminent or substantial endangerment to the health or welfare of persons, to the environment, causes interference to the POTW or causes the city to violate any condition of its NPDES permit.

(b)

Any person notified of a suspension of the wastewater treatment service and/or the industrial wastewater discharge permit shall immediately stop or eliminate the contribution. In the event of a failure of the person to comply voluntarily with the suspension order, the city shall take such steps as deemed necessary including immediate severance of the sewer connection, to prevent or minimize damage to the POTW system or endangerment to any individuals. The city shall reinstate the industrial wastewater discharge permit and/or the wastewater treatment service upon proof of the elimination of the noncomplying discharge. A detailed written statement

submitted by the user describing the causes of the harmful contribution and the measures taken to prevent any future occurrence shall be submitted to the city within fifteen (15) days of the date of occurrence.

(Code 1968, § 19-62)

Sec. 14-70. - Notification of violation.

Whenever the city finds that any user has violated or is violating this division, such user's industrial wastewater discharge permit, or any prohibition, limitation or requirement contained herein, the city may serve upon such person a written notice stating the nature of the violation. Within thirty (30) days of the date of the notice, a plan for the satisfactory correction thereof shall be submitted to the city by the user.

(Code 1968, § 19-64)

Sec. 14-71. - Show cause hearing.

(a)

The city may order any user who causes or allows an unauthorized discharge to enter the POTW to show cause before the city council why the proposed enforcement action should not be taken. A notice shall be served on the user specifying the time and place of a hearing to be held by the city council regarding the violation, the reasons the action is to be taken, the proposed enforcement action, and directing the user to show cause before the city council why the proposed enforcement action should not be taken. The notice of the hearing shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days before the hearing. Service may be made on any agent or officer of a corporation.

(b)

The city council may itself conduct the hearing and take the evidence, or may designate any of its members or any officer or employee of the assigned department to:

(1) Issue in the name of the city council notices of hearings requesting the attendance and testimony of witnesses and the production of evidence relevant to any matter involved in such hearings;

(2) Take the evidence;

(3) Transmit a report of the evidence and hearing, including transcripts and other evidence, together with recommendations to the city council for action thereon.

(c)

At any hearing held pursuant to this division, testimony taken must be under oath and recorded stenographically. The transcript, so recorded, will be made available to any member of the public or any party to the hearing upon payment of the usual charges thereof.

(d)

After the city council has reviewed the evidence, it may issue an order to the user responsible for the discharge directing that, following a specified time period, the sewer service is discontinued unless adequate treatment facilities, devices or other related appurtenances shall have been installed on existing treatment facilities, devices or other related appurtenances are properly operated. Further orders and directives as are necessary and appropriate may be issued.

(Code 1968, § 19-65)

Sec. 14-72. - Legal action.

If any person discharges sewage, industrial wastes or other wastes into the city's wastewater disposal system contrary to the provisions of this division, federal or state pretreatment requirements, or any order of the city, the city attorney may commence an action for appropriate legal and/or equitable relief in the circuit court of this county.

(Code 1968, § 19-66)

Sec. 14-73. - Penalties.

Any user who is found to have violated an order of the city council or who wilfully or negligently fails to comply with any provision of this division, and the orders, rules, regulations and permits issued hereunder, shall be punished as provided in section 1-8. Each day on which a violation shall occur or continue shall be deemed a separate and distinct offense. In addition to the penalties provided herein, the city may recover reasonable attorney's fees, court costs, court reporter's fees and other expenses of litigation by appropriate suit at law against the person found to have violated this division or the orders, rules, regulations, and permits issued hereunder.

(Code 1968, § 19-67)

Sec. 14-74. - Falsifying information.

Any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to this division, or industrial wastewater discharge permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this division, shall, upon conviction, be punished as provided in section 1-8.

(Code 1968, § 19-68)

Secs. 14-75—14-79. - Reserved.

Suttles, Draper R

From: Carmen Chosie <Carmen.Chosie@cdge.com>
Sent: Wednesday, June 3, 2020 9:32 AM
To: Suttles, Draper R
Cc: mkelleycity
Subject: AL0055417 - Andalusia Riverside NPDES Permit
Attachments: EPA Form 2A page 5.pdf; EPA Form 2S.pdf; EPA Form 2F.pdf

Draper,

Good morning, and I hope you are well. Based on our phone conversation two weeks ago, please find the following documents attached for the referenced facility:

- Form 2A, page 5
  - The facility's outfall is equipped with a diffuser; per their operator, the discharge pipe was welded shut long ago and holes were cut in the side to create a submerged diffuser
- Form 2S
  - The facility operates geotubes for storage and dewatering of sludge. The amount of sludge hauled off by the third party contractor varies annually (can sometimes even be none), but a log book is kept at the facility detailing when and how many bags of sludge (14-tons each) are hauled off.
- Form 2F
  - Flows previously reported on Outfall 002S DMRs were plant flows on the date of the stormwater sampling – the facility has been informed that this flow data should be from the stormwater outfall site, and a calculation spreadsheet has been shared with the facility for future reporting needs.
  - All five (5) stormwater sites have been listed, and the facility would like to respectfully request that a representative sample continue to be taken from SW 5 (Outfall 2S)

Please let us know if you have any questions, concerns, or require any additional information for the application processing at this time.

Thanks!
Carmen Chosie, P.E.
CDG Engineers and Associates, Inc.
Office: 334-677-9431

Please print or type in the unshaded areas only.

EPA ID Number (*copy from Item 1 of Form 1*)
AL0055417

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

FORM 2F NPDES

U.S. Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number (*list*)	B. Latitude			C. Longitude			D. Receiving Water (*name*)
SW 5 (002S)	31.00	18.00	28.25	-86.00	31.00	28.48	UT OF CONECUH RIVER
SW 1	31.00	18.00	22.86	-86.00	31.00	26.68	UT OF CONECUH RIVER
SW 2	31.00	18.00	21.15	-86.00	31.00	16.99	UT OF CONECUH RIVER
SW 3	31.00	18.00	22.41	-86.00	31.00	26.17	UT OF CONECUH RIVER
SW 4	31.00	18.00	21.65	-86.00	31.00	16.19	UT OF CONECUH RIVER

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
N/A	N/A	N/A	N/A		

B: You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfalls(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage of disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which received storm water discharges from the facility.

Continue on Page 2

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
002S	76,200 SQFT	35 ACRES	N/A	N/A	N/A

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

Facility is a municipal wastewater treatment plant and contains pervious and impervious areas and open tanks. Processed biosolids are stored on site in geo tubes within a covered structure with drainage such that runoff is not impacted. For any chemicals on site, a spill prevention plan is in place. Materials summary outlined in attached SWPP.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
ALL	Vegetative cover is maintained in the tributary area associated with each outfall; inspections are conducted in accordance with the SWPP (attached).	1-F; 1-U; 4-A

V. Nonstormwater Discharges

A. I certify under penalty of law hat the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or From 2E application for the outfall.

Name and Official Title (*type or print*)	Signature	Date Signed
Earl V. Johnson, Mayor		6-2-20

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

N/A

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

None

Continued from Page 2

EPA ID Number *(copy from Item 1 of Form 1)*
AL005417

VII. Discharge Information

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.
Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes *(list all such pollutants below)* ☑ No *(go to Section IX)*

N/A

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes *(list all such pollutants below)* ☑ No *(go to Section IX)*

N/A

IX. Contract Analysis Information

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

☑ Yes *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ No *(go to Section X)*

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
ERA	2975 Brown Court Auburn, AL 36830	334-502-3444	All required per permit

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title *(Type Or Print)*	B. Area Code and Phone No.
Earl V. Johnson, Mayor	(334) 222-3312
C. Signature	D. Date Signed
	6-2-20

VII. Discharge information *(Continued from page 3 of Form 2F)*

Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	*B	N/A	*B	N/A	1.00	POTW
Biological Oxygen Demand (BOD5)	4.2 mg/L	N/A	4.2 mg/L	N/A	1.00	POTW
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	167 mg/L	N/A	167 mg/L	N/A	1.00	POTW
Total Nitrogen	*B	N/A	*B	N/A	1.00	POTW
Total Phosphorus	0.100 mg/L	N/A	0.100 mg/L	N/A	1.00	POTW
pH	Minimum 6.31	Maximum 7.63	Minimum 6.31	Maximum 7.63	1.00	POTW

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
DO	7.29 mg/L	N/A	7.29 mg/L	N/A	1.00	POTW
TKN	1.01 mg/L	N/A	1.01 mg/L	N/A	1.00	POTW
NO2/NO3	0.272 mg/L	N/A	0.272 mg/L	N/A	1.00	POTW
TRC	0 mg/L	N/A	0 mg/L	N/A	1.00	POTW
E coli	3.1 col/100mL	N/A	3.1 col/100	N/A	1.00	POTW

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

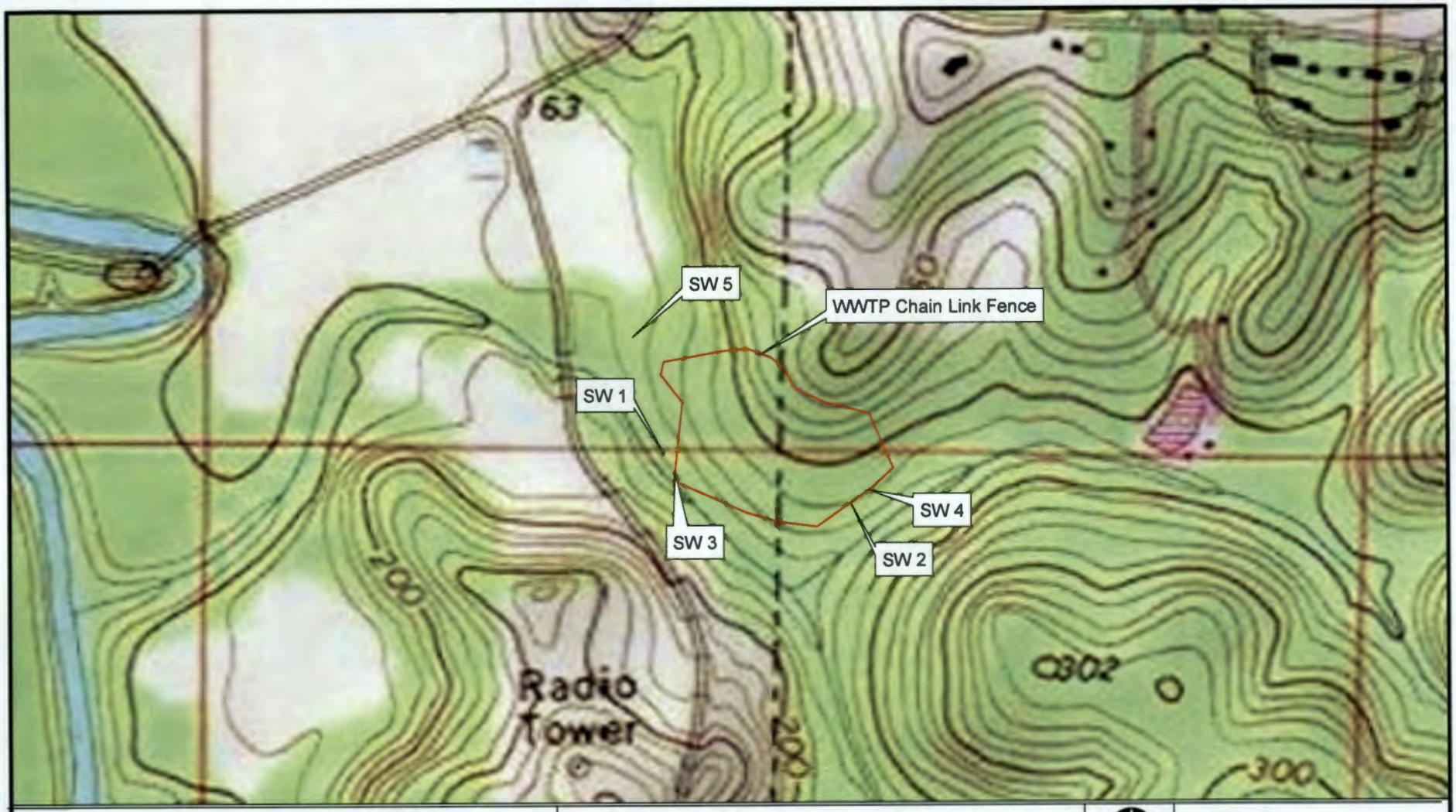
Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
1/12/2019	90 minutes	1.2 inches	> 24 hours	263.0 gpm	23,666 gallons

7. Provide a description of the method of flow measurement or estimate.

Rational Method



Stormwater Outfall Locations

AL0055417 Riverside NPDES Permit

Andalusia, AL

CDG

Engineering. Environmental. Answers.

1840 E. Three Notch St.
Andalusia, AL 36420
(334) 222-9431
(334) 222-4018 FAX
www.cdge.com

Sheet No. 1

Drawn By: CDC

Checked by: CDC

Date: May 2020

Appendix

STORM WATER POLLUTION PREVENTION PLAN
RIVERSIDE WASTEWATER TREATMENT FACILITY
RABREN ROAD
ANDALUSIA, ALABAMA

FOR THE
UTILITIES BOARD OF THE
CITY OF ANDALUSIA, ALABAMA

NOVEMBER 2009

Prepared By:

GOODWYN, MILLS AND CAWOOD, INC.
ARCHITECTS ■ ENGINEERS ■ LANDSCAPE ARCHITECTS ■ PLANNERS ■ SURVEYORS
213 Church Street, Suite C
P. O. Box 458
Andalusia, Alabama 36420

STORM WATER POLLUTION PREVENTION PLAN
RIVERSIDE WASTEWATER TREATMENT FACILITY
RABREN ROAD
ANDALUSIA, ALABAMA

FOR THE
UTILITIES BOARD OF THE
CITY OF ANDALUSIA, ALABAMA

GMC PROJECT NO. A09038

TABLE OF CONTENTS

STORM WATER POLLUTION PREVENTION PLAN
RIVERSIDE WASTEWATER TREATMENT FACILITY
RABREN ROAD
ANDALUSIA, ALABAMA

1. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) OVERVIEW

This Storm Water Pollution Prevention Plan:

- Identifies the SWPP coordinator with a description of the coordinator's duties;
- Identifies members of the SWPP team and lists their responsibilities;
- Describes the facility, with information on location and activities, a site map, and a description of the storm water drainage system;
- Identifies potential storm water contaminants;
- Describes storm water management controls and various Best Management Practices (BMP's) needed to reduce pollutants in storm water discharges;
- Describes the facility's monitoring; and,
- Describes the implementation schedule and provisions for amendment of the plan.

2. PLANNING AND ORGANIZATION

2.1 SWPP Coordinator and Team

This is the member roster and list of responsibilities for the Pollution Prevention Team. The Team is responsible for implementing the Storm Water Pollution Prevention Plan (SWPPP).

Leader: Mike Kelley Office Phone: (334) 222-8208

Title: Chief Operator Cell Phone: (334) 504-5256

Responsibilities: Coordinate all stages of plan development, inspections and implementation; coordinate employee training programs; keep all records and ensure that reports are submitted; oversee sampling program.

Member: Timmy Turner Office Phone: (334) 222-8208

Title: Plant Operator Cell Phone: _____

Responsibilities: Implement the preventive maintenance program; oversee good housekeeping activities; serves as spill response coordinator.

Member: Bob Deloach Office Phone: (334) 222-8208

Title: Lab Director Cell Phone: _____

Responsibilities: Conduct/assist with inspections and training program; conduct sampling.

3. ASSESSMENT

3.1 The Andalusia Riverside Wastewater Treatment Plant is located at 21938 Rabren Road in Andalusia, Alabama. The site map (Attachment 1) shows the location of the facility. The facility is a 2.84 mgd, extended aeration, activated sludge plant, located on approximately 35 acres of land. The facility includes an influent pump station, fine screening, aeration, secondary clarification, chlorination/dechlorination, solids handling, and administration. The facility has two front end loaders, one tractor with a mower, two lawn mowers, four service trucks, and one passenger vehicle. The facility receives septage at a manhole upstream from the plant, and disposes of dried sludge at an area landfill. There is one outfall to the Conecuh River for treated wastewater and four (4) outfalls to an unnamed tributary to the Conecuh River for the discharge of stormwater from the site.

3.2 **Site Map** - Attached

3.3 **Significant Material Inventory**

Materials used by this facility and activities that are exposed to storm water runoff are listed in Attachment 2.

3.4 **VEHICLE WASHING**

No vehicles are washed on site.

3.5 **Spills and Leaks**

There has been no significant spills or chronic leaks at this facility in the past three (3) years.

3.6 **Non-Storm Water Discharges**

None

3.7 Allowable Non-Storm Water Discharges

Two (2) fire hydrants on the plant site are flushed approximately twice per year, discharging approximately 20,000 gallons of water per year.

3.8 Existing Storm Water Monitoring Data

The Andalusia Riverside Wastewater Treatment Plant has no historical stormwater monitoring data.

3.9 Site Summary (Sources of pollution with a high risk of contaminating storm water)

Screenings and sludge

4. IMPLEMENTATION

4.1 Good Housekeeping

The following is a list of good housekeeping practices:

- No washing of equipment or vehicles to the storm drain is allowed. Washing is done where the wash water is collected and discharged to the treatment system. Spills are immediately cleaned up with an absorbent. (See Spill Prevention and Response Procedures in Section 4.7)
- All fluid products and wastes are kept indoors.
- Waste oil stored in drums outside are kept closed except when filling.
- Used antifreeze is kept in a covered container.
- All changing of fluids is done indoors.
- Compost is located where there is no runoff to surface waters.

The following is a list of good housekeeping practices that will be implemented, along with expected date of implementation, at this facility:

- Within 30 days, liquid and dry material storage will be relocated to an indoor area with proper containment and separation of potentially volatile materials.
- Within 30 days, spigots will be used to minimize drips/leaks.
- Within 30 days, drip pans will be used when changing fluids.
- Within 60 days, all above ground tanks will have secondary containment.

4.2 Preventive Maintenance

The following is a list of preventive maintenance procedures practiced at this facility:

- This facility has a written spill prevention and response policy.
- All staff are aware of the spill prevention and response policy.
- Spill response equipment is located at all potential spill areas.
- All transfers to and from tanks are observed by qualified personnel trained in spill response procedures.
- Underground storage tank filling areas are inspected regularly for signs of spills.
- Hydraulic equipment is kept in good repair to prevent leaks.
- Uncontaminated storm water in containment areas is kept to a minimum.

The following is a list of preventive maintenance measures that will be implemented and the date by which they will be implemented:

- Within 30 days, begin performing daily inspections of the plant site for potential sources of stormwater, and maintain a daily log of the inspections.
- Within 30 days, begin regular inspections of the fueling area for signs of spills or leaks and proper labeling. Hoses and fittings will also be regularly inspected.
- Within 30 days, begin regular inspections of above ground storage tanks for signs of corrosion or leaks.
- Within 30 days, all materials, waste storage areas, drains, tanks and cans will be properly labeled.

4.3 Best Management Practices (BMP's)

The following is a list of existing and planned Best Management Practices. When implemented, the BMP's will prevent or reduce the discharge of potential pollutants in storm water runoff from the areas/activities identified in the Site Summary.

Loading and unloading areas. To prevent or reduce the potential of storm water contamination in the loading and unloading areas, the following BMP's will be implemented.

- Loading and unloading are done inside where possible.
- Hazardous materials that are in easily ripped or breakable containers (such as bags, plastic pails) are not loaded or unloaded outside when it rains.

- A staff member is present during loading and unloading operations.
- When drums are being handled, the storm sewer is covered to help contain potential spills.
- Within 30 days, an emergency spill kit will be placed in the loading/unloading area.

Outdoor Storage

- Diesel fuel tank. This underground tank has secondary containment.
- A member of the spill response team is on hand at all times during filling.
- Dumpster lid is closed except when in use.

4.4 Sediment and Erosion Control

Below is a list of potential erosion areas and measures to prevent erosion:

- Potential source of erosion: Slopes around perimeter of the site.
- Management practice(s) to prevent erosion: Seed unvegetated areas. Stabilize sloped areas.

4.5 Management of Storm Water Runoff

The following management practices for runoff are used at this facility:

- Drainage outfalls discharge to rip-rap pads.

4.6 Spill Prevention and Response

Loading/unloading area:

- Spill response equipment is kept at the plant shop and includes Speedi-Dry, brooms, mops, absorbent pads, etc. All personnel are instructed in its location and use.
- The pollution prevention team leader or the spill coordinator will be advised immediately of all spills of hazardous materials or regulated materials, regardless of quantity.
- Spills will be evaluated to determine the necessary response. If there is a health hazard, fire or explosion potential, 911 will be called. If a spill is large or threatens surface waters, including storm drains, state or federal emergency response agencies will be called.
- Spills will be contained as close to the source as possible with a dike of absorbent materials from the emergency spill kit. Additional dikes will be constructed to protect swales or other storm water conveyances or

streams. A cover or dike will protect any other storm water structures such as catch basins.

4.7 Employee Training

The topics below will be covered at employee training sessions. All employees will be trained annually. (Specify the topics here).

Pollution prevention team members will meet at least twice a year to discuss the effectiveness of an improvement to the Plan.

5 EVALUATION

5.1 Quarterly Visual Monitoring

Every quarter the storm water discharges at each outfall will be examined visually. The visual examination will be made during daylight hours and within 30 minutes after storm water begins to runoff. Any observed contamination/problems will be documented with date and time. The source of contamination will be documented and actions to eliminate it will be taken. A quarterly monitoring log is shown in Attachment 4.

5.2 Annual Sampling

Annual sampling of all five (5) discharge points will be conducted in accordance with the Plant's NPDES permit requirements.

5.3 Annual Site Inspections (Comprehensive Site Compliance Evaluation)

The entire facility will be inspected at least once a year. The inspection will seek for evidence of pollution, will evaluate BMP's that have been implemented, and will inspect equipment. The site inspection report will include date of inspection, name of personnel conducting the inspection, observations, assessment of BMP's, corrective actions taken, and bear a signed certification.

This information will be included in a Compliance Evaluation Report, which will be kept with the SWPPP. Both the Evaluation Report and any reports of follow-up action will be certified. Certification language: "This Compliance Evaluation Report has been prepared by qualified personnel who properly gathered and evaluated information submitted for this Report. The information in this Report, to the best of my knowledge, is accurate and complete." The certification must be signed and dated.

5.4 Recordkeeping and Reporting

The facility will maintain records of spills, leaks, inspections and maintenance activities for at least one year after the permit expires.

5.5 Plan Revisions

Change in the facility's layout or operations will require changes in the Storm Water Pollution Prevention Plan. The plan will be revised by the City of Andalusia personnel and the new plan will be submitted to ADEM for review and approval.

This Plan will also be amended if a state or federal inspector determines that it is not effective in controlling storm water pollutants discharged to waterways.

6. CERTIFICATIONS

This page includes certifications for:

- Non-Storm Water Discharges
- Storm Water Pollution Prevention Plan

Non-Storm Water Discharges

All storm water outfalls to surface waters at this facility have been evaluated and found to be free of non-storm water discharges.

Storm Water Pollution Prevention Plan

This Storm Water Pollution Prevention Plan has been prepared in accordance with good engineering practices. Qualified personnel properly gathered and evaluated information submitted for this Plan. The information in this Plan, to the best of my knowledge, is accurate and complete.

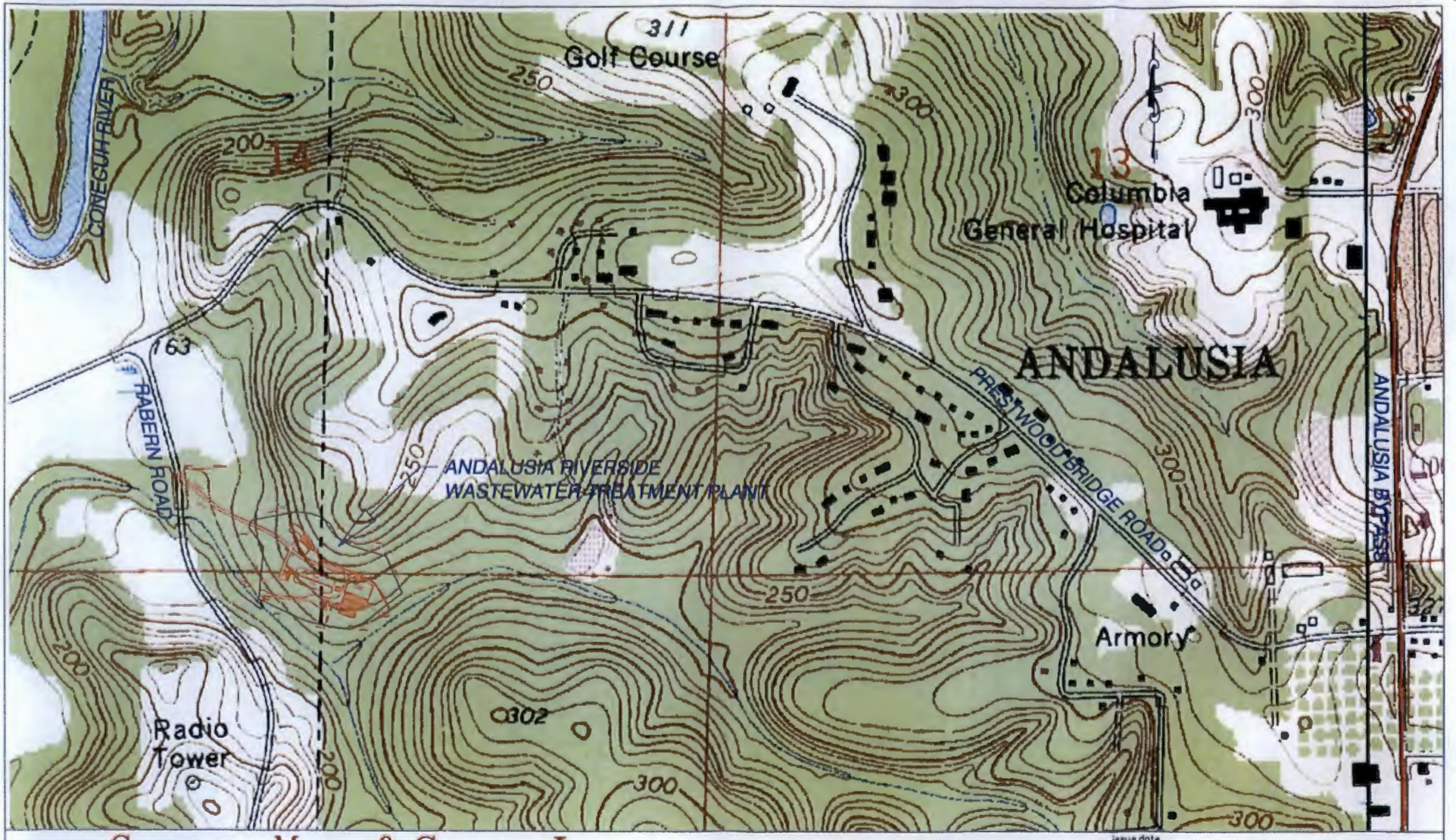
_____

Kenneth Blackburn, Water and Sewer Operations Manager

_____

DATE

APPENDIX



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213-B Church Street, P.O. Box 458/Andalusia, Alabama 36420
Phone: (334) 222-2699 FAX: (334) 222-3573

ANDALUSIA RIVERSIDE
WASTEWATER TREATMENT PLANT
ANDALUSIA, ALABAMA

issue date
NOVEMBER 2009

VICINITY MAP

ATTACHMENT 3

SWPPP MATERIAL INVENTORY

Material	Activity/Use	Quantity stored (tank size if applicable: above or below ground)	Pollutant	Likelihood of contact with storm water? (Low, medium, or high)	Comments
Diesel Fuel	Fuel	1,000 Underground Storage Tank	Diesel Fuel	Low	
Sewage Screenings	Residual Solids	5 CY Dumpster	Sewage	Medium	
Sewage Sludge	Dried Sludge	Geo Tubes 500 Tons	Sewage Sludge	Low	
Polymer	Wastewater Treatment	165 Gallons in Drums	Polymer	Low	
Solid Chlorine	Cleaning	15 lbs in Buckets	HTH	Low	

ATTACHMENT 3A

SITE SUMMARY (Activities with a High Risk of Contaminating Storm Water)

Activity	Pollutants	Current Practices	Future Practices
Removing Sludge From Drying Beds	Sludge	Dry Clean-Up	Dry Clean-Up
Fueling Deisel Tank	Deisel Fuel	None	Observe Filling Process
Oil and Chemical Storage	Oils, Chemicals, etc. Used at Plant	Unload Outside, and Store Some Outside	Unload and Store All Inside Shop

ATTACHMENT 4

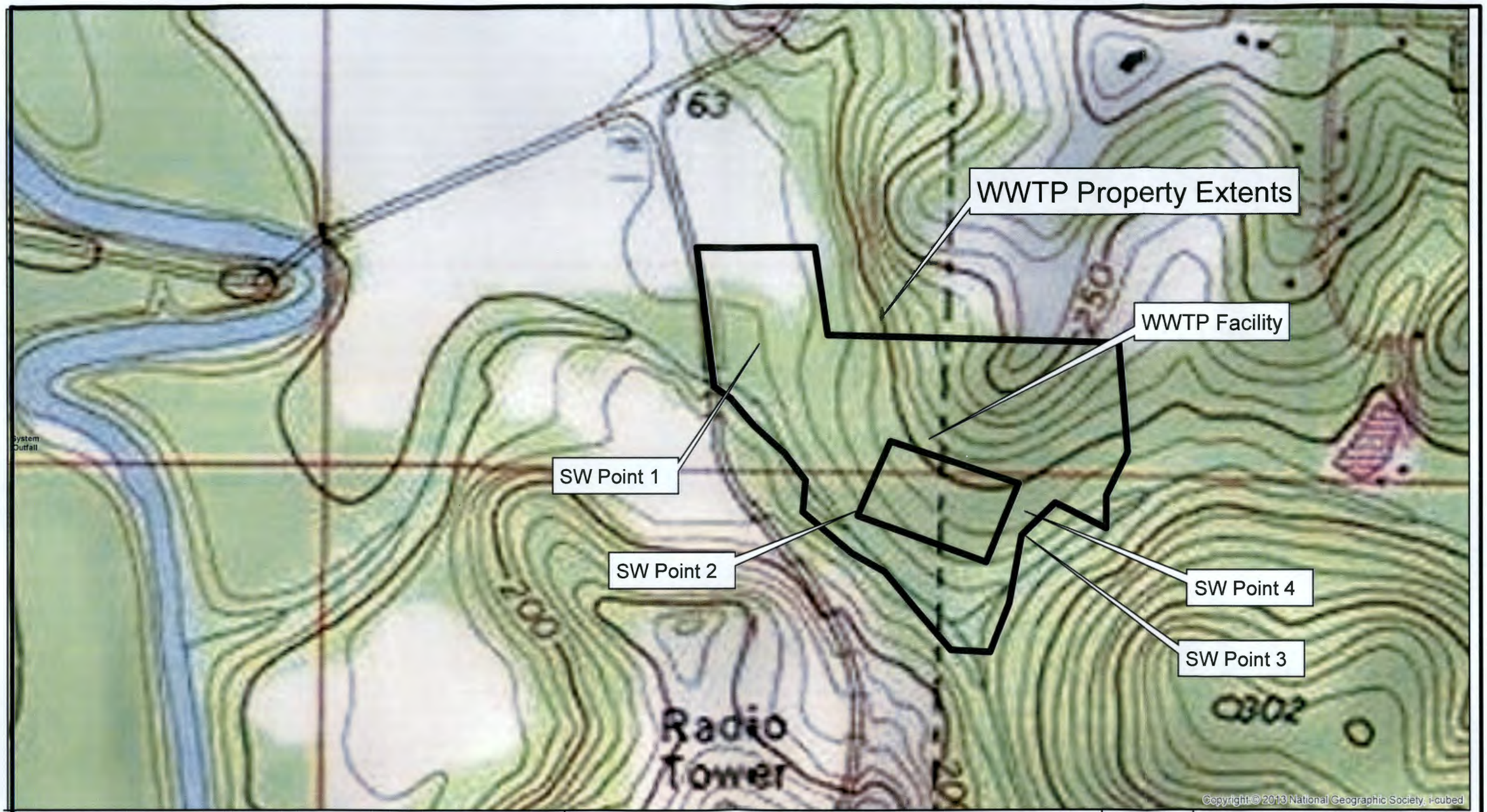
List of Significant Spills (> 5 gallons) and Chronic Leaks

Date	Spill	Leak	Source	Description			Response Procedures	Measures Taken to Prevent Reoccurrence
	(Check one)			Type of Material	Quantity	Reason		

ATTACHMENT 5

Sample Daily Visual Monitoring Inspection Log for Storm Water Pollution

Date	Time	Outfall Number or Description	Weather Conditions	Observations (contaminants observed/ erosion/ sediment runoff	Probable Source of Any Observed Contamination	Action Taken to Prevent In Future	Inspector Signature



Utilities Board of the City of Andalusia

Riverside WWTP

Composites Sites for Stormwater Monitoring

Andalusia, AL

1840 E. Three Notch St.
Andalusia, AL 36420
(334) 222-9431
(334) 222-4018 FAX
www.cdge.com

Sheet No. 1

Drawn By: CDC

Checked by: CDC

Date: February 2018

E2 Receipt

Here is your report submission receipt. Click here to print.

Submission ID: 193605
Submitted on 2/20/2018 3:13:30 PM, at 64.91.25.249

Submitted by: Michael Kelley
Andalusia Riverside Wwtp
PO Box 790
Andalusia, AL 36420
334-222-8208
mkelleycity@centurytel.net

Report Detail

Summary Discharge Monitoring Report

Facility Name	Andalusia Riverside Wwtp
Permit Number	AL0055417
Report Frequency	ANNUALLY
Report Period	01/01/2017 - 12/31/2017

Attachment Detail

Online Attachments

Mail Attachments

Mail to Address:

Mail in the following attachment(s):

Thank you for using E2 system!

Alabama Department of Environmental Management Discharge Monitoring Report *(DMR)*

PERMITTEE NAME: Utilities Board Of The City Of Andalucia
PERMIT NUMBER: AL0055417
MAILING ADDRESS: Post Office Box 790, Andalusia, AL36420
MONITORING POINT: 0025
COUNTY: Covington
FACILITY: Andalusia Riverside Wwtp
LOCATION: Rabyen Road CR 19, Andalucia, AL 36420
Monitoring Period: 2017-01-01To: 2017-12-31
NO DISCHARGE FROM SITE: ()

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
OXYGEN, DISSOLVED (DO)	Sample Measurement	*****	*****		5.11	*****	*****		0	Annually	Grab
PARAM CODE: 00300 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		Report Minimum Daily	*****	*****	19 mg/l		Annually	Grab
PH	Sample Measurement	*****	*****		6.67	*****	7.71		0	Annually	Grab
PARAM CODE: 00400 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		Report Minimum Daily	*****	Report Maximum Daily	12 S.U.		Annually	Grab
SOLIDS, TOTAL SUSPENDED	Sample Measurement	*****	*****		*****	*****	130.5		0	Annually	Grab
PARAM CODE: 00530 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		*****	*****	Report Maximum Daily	19 mg/l		Annually	Grab
OIL & GREASE	Sample Measurement	*****	*****		*****	*****	*B		0	Annually	Grab
PARAM CODE: 00556 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		*****	*****	15.0 Maximum Daily	19 mg/l		Annually	Grab
NITROGEN, AMMONIA TOTAL (AS N)	Sample Measurement	*****	*****		*****	*****	0.455		0	Annually	Grab
PARAM CODE: 00610 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		*****	*****	Report Maximum Daily	19 mg/l		Annually	Grab
NITROGEN, KJELDAHL TOTAL (AS N)	Sample Measurement	*****	*****		*****	*****	0.965		0	Annually	Grab
PARAM CODE: 00625 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		*****	*****	Report Maximum Daily	19 mg/l		Annually	Grab
NITRITE PLUS NITRATE TOTAL 1 DET. (AS N)	Sample Measurement	*****	*****		*****	*****	0.219		0	Annually	Grab
PARAM CODE: 00630 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		*****	*****	Report Maximum Daily	19 mg/l		Annually	Grab

Name/Title of Principal Executive Officer Or Authorized Agent	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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. §1319	Signature of Principal Executive Officer Or Authorized Agent	Telephone No	Date (MM/DD/YY)

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

Storm Water
2017

Alabama Department of Environmental Management Discharge Monitoring Report *(DMR)*

PERMITTEE NAME: Utilities Board Of The City Of Andalusia
PERMIT NUMBER: *AL0055417*
MAILING ADDRESS: Post Office Box 790, Andalusia, AL36420
MONITORING POINT: 002S
COUNTY: Covington
FACILITY: Andalusia Riverside Wwtp
LOCATION: Rabren Road CR 19, Andalusia, AL 36420
Monitoring Period : 2017-01-01 To: 2017-12-31
NO DISCHARGE FROM SITE: ()

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
PHOSPHORUS, TOTAL (AS P)	Sample Measurement	*****	*****		*****	*****	0.135	19 mg/l	0	Annually	Grab
PARAM CODE: 00665 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		*****	*****	Report Maximum Daily			Annually	Grab
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	Sample Measurement	1.98	1.79	03 MGD	*****	*****	*****		0	Annually	Calculated
PARAM CODE: 50050 Stage Code: 1 Final Effluent	Permit Requirement	Report Monthly Average	Report Maximum Daily		*****	*****	*****			Annually	Calculated
CHLORINE, TOTAL RESIDUAL	Sample Measurement	*****	*****		*****	*****	0	19 mg/l	0	Annually	Grab
PARAM CODE: 50060 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		*****	*****	Report Maximum Daily			Annually	Grab
E.COLI	Sample Measurement	*****	*****		*****	*****	6.4	13 col/100mL	0	Annually	Grab
PARAM CODE: 51040 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		*****	*****	REPORT Maximum Daily			Annually	Grab
MOD. CARBONACEOUS 05 DAY, 20C	Sample Measurement	*****	*****		*****	*****	5.03	19 mg/l	0	Annually	Grab
PARAM CODE: 80082 Stage Code: 1 Final Effluent	Permit Requirement	*****	*****		*****	*****	Report Maximum Daily			Annually	Grab

Name/Title of Principal Executive Officer Or Authorized Agent	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. SEE 18 U.S.C. § 1001 AND 33 U.S.C. §1319	Signature of Principal Executive Officer Or Authorized Agent	Telephone No	Date (MM/DD/YY)

COMMENT AND EXPLANATION OF ANY VIOLATION'S (Reference all attachments here)

Suttles, Draper R

From: Carmen Chosie <Carmen.Chosie@cdge.com>
Sent: Tuesday, October 20, 2020 11:30 AM
To: Suttles, Draper R
Cc: mkelleycity
Subject: RE: AL0055417 - Andalusia Riverside NPDES Permit
Attachments: Riverside_Stormwater_Basins.pdf

Draper,

Good morning! Attached for your use is a map outlining each stormwater outfall basin based on our phone call earlier this morning.

Please let me know if there is any additional information needed to process the permit renewal application packet at this time.

Thanks!
Carmen Chosie, P.E.
CDG Engineers and Associates, Inc.
Office: 334-677-9431

From: Carmen Chosie
Sent: Wednesday, June 3, 2020 9:32 AM
To: Suttles, Draper R <draper.rushing@adem.alabama.gov>
Cc: mkelleycity <mkelleycity@centurytel.net>
Subject: AL0055417 - Andalusia Riverside NPDES Permit

Draper,

Good morning, and I hope you are well. Based on our phone conversation two weeks ago, please find the following documents attached for the referenced facility:

- Form 2A, page 5
  - The facility's outfall is equipped with a diffuser; per their operator, the discharge pipe was welded shut long ago and holes were cut in the side to create a submerged diffuser
- Form 2S
  - The facility operates geotubes for storage and dewatering of sludge. The amount of sludge hauled off by the third party contractor varies annually (can sometimes even be none), but a log book is kept at the facility detailing when and how many bags of sludge (14-tons each) are hauled off.
- Form 2F
  - Flows previously reported on Outfall 002S DMRs were plant flows on the date of the stormwater sampling – the facility has been informed that this flow data should be from the stormwater outfall site, and a calculation spreadsheet has been shared with the facility for future reporting needs.
  - All five (5) stormwater sites have been listed, and the facility would like to respectfully request that a representative sample continue to be taken from SW 5 (Outfall 2S)

Please let us know if you have any questions, concerns, or require any additional information for the application processing at this time.

Stormwater Outfall Basins

AL0055417 Riverside NPDES Permit

Andalusia, AL

CDG
Engineering. Environmental. Answers.

1840 E. Three Notch St.
Andalusia, AL 36420
(334) 222-9431
(334) 222-4018 FAX
www.cdge.com

Sheet No. 1

Drawn By: CDC
Checked by: CDC
Date: October 2020