LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

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

FEB 15 2019

Clarence E. Burke, Owner/Manager
Baldwin County Sewer Service, LLC
14747 Underwood Road
Summerdale, Alabama 36580

RE: Draft Permit
NPDES Permit No. AL0042234
Spanish Fort Sewer WWTP
Baldwin County, Alabama

Dear Mr. Burke:

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 that you apply for 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 that you apply for participation in the Department's web-based electronic environmental (E2) reporting system for submittal of **SSOs** within 30 days of coverage under this permit unless valid justification as to why you cannot participate is submitted in writing. After issuance of the permit, 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 sammons@adem.state.al.us or by phone at (334) 274-4151.

Sincerely,

Stephanie Ammons

Stephanie Ammons
Municipal Section
Water Division

SBA/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)

Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE:	Baldwin County Sewer Service, LLC 14747 Underwood Road Summerdale, Alabama 36580	
FACILITY LOCATION:	Spanish Fort Sewer WWTP 12840 Highway 90 Loxley, Alabama Baldwin County	(Outfall 0011 – 0.25 MGD) (Outfall 0022 – 1.0 MGD)
PERMIT NUMBER:	AL0042234	
RECEIVING WATERS:	Bay Branch, Fish River (storm water only)	

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

DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. Outfall 0011 Discharge Limits – 0.25 MGD

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	*****	*****	*****	*****	6.0 mg/l	*****	*****	E	GRAB	D	*****
pH 00400 1 0 0	*****	*****	*****	*****	6.0 S.U.	8.5 S.U.	*****	E	GRAB	D	*****
Solids, Total Suspended 00530 1 0 0	62.5 lbs/day	93.8 lbs/day	30.0 mg/l	45.0 mg/l	*****	*****	*****	E	COMP24	D	*****
Solids, Total Suspended 00530 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	D	*****
Nitrogen, Ammonia Total (As N) 00610 1 0 0	4.1 lbs/day	6.2 lbs/day	2.0 mg/l	3.0 mg/l	*****	*****	*****	E	COMP24	D	*****
Nitrogen, Kjeldahl Total 00625 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	GS
Nitrite Plus Nitrate Total (As N) 00630 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	GS
Phosphorus, Total 00665 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	GS
Flow, In Conduit or Thru Treatment Plant 50050 1 0 0	REPORT MGD	*****	*****	*****	*****	REPORT MGD	*****	E	CONTIN	A	*****
Chlorine, Total Residual (5)(6) 50060 1 0 0	*****	*****	0.011 mg/l	*****	*****	0.019 mg/l	*****	E	GRAB	D	*****
E. Coli 51040 1 0 0	*****	*****	126 col/100mL	*****	*****	235 col/100mL	*****	E	GRAB	D	*****
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	20.8 lbs/day	31.2 lbs/day	10.0 mg/l	15.0 mg/l	*****	*****	*****	E	COMP24	D	*****
BOD, Carbonaceous 05 Day, 20C 80082 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	D	*****
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)
GS = Growing Season (April – October)

(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.
(6) A measurement of TRC below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as "*B" or "NODI=B" (if hard copy) on the monthly DMR.

2. Outfall 001T Discharge Limits – 0.25 MGD

This is an administrative outfall designation. Outfall 001T is the same physical outfall as Outfall 0011. Discharge from this outfall 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	W
Toxicity, Pimephales Chronic 61428 1 0 0	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q	W

* 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)

3. Outfall 0022 Discharge Limits – 1.0 MGD

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 0022, 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	*****	*****	*****	*****	6.0 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	250 lbs/day	375 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	16.6 lbs/day	25.0 lbs/day	2.0 mg/l	3.0 mg/l	*****	*****	*****	E	COMP24	C	*****
Nitrogen, Kjeldahl Total 00625 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	*****
Nitrite Plus Nitrate Total (As N) 00630 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	*****
Phosphorus, Total 00665 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	*****
Zinc Total Recoverable 01094 1 0 0	*****	*****	197 ug/l	*****	*****	197 ug/l	*****	E	GRAB	G	*****
Flow, In Conduit or Thru Treatment Plant 50050 1 0 0	REPORT MGD	*****	*****	*****	*****	REPORT MGD	*****	E	CONTIN	A	*****
Chlorine, Total Residual (5)(6) 50060 1 0 0	*****	*****	0.011 mg/l	*****	*****	0.019 mg/l	*****	E	GRAB	C	*****
E. Coli 51040 1 0 0	*****	*****	126 col/100mL	*****	*****	235 col/100mL	*****	E	GRAB	C	*****
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	83.4 lbs/day	125 lbs/day	10.0 mg/l	15.0 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.
(6) A measurement of TRC below 0.05 mg/L shall be considered in compliance with the permit limitations above and should be reported as "*B" or "NODI=B" (if hard copy) on the monthly DMR..

4. Outfall 002Q Discharge Limits – 1.0 MGD

This is an administrative outfall designation. Outfall 002Q is the same physical outfall as Outfall 0022. Discharge from this outfall 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
Mercury Total Recoverable (5) 71901 1 0 0	*****	*****	REPORT ug/l	*****	*****	REPORT 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) Mercury monitoring is required quarterly using EPA approved methods 1631E/1669 or an alternative method specifically approved by the Department.

5. Outfall 002T Discharge Limits – 1.0 MGD

This is an administrative outfall designation. Outfall 002T is the same physical outfall as Outfall 0022. Discharge from this outfall 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)

6. Outfall 003S Discharge Limits

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 003S, which is described more fully in the Permittee's application as DP-1. The Permittee is authorized to conduct representative sampling at Outfall 003S for Outfall 007S, which is described in the Permittee's application as DP-5. The discharge at Outfall 003S 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)(5) 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 00625 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Nitrite Plus Nitrate Total (As N) 00630 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Phosphorus, Total 00665 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Flow, In Conduit or Thru Treatment Plant 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) See Part IV.G.3 for storm water monitoring requirements.

7. Outfall 004S Discharge Limits

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 004S, which is described more fully in the Permittee's application as DP-2. The Permittee is authorized to conduct representative sampling at Outfall 004S for Outfall 008S, which is described in the Permittee's application as DP-6. The discharge at Outfall 004S 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)(5) 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 00625 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Nitrite Plus Nitrate Total (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 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) See Part IV.G.3 for storm water monitoring requirements.

8. Outfall 005S Discharge Limits

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 005S, which is described more fully in the Permittee's application as DP-3. The Permittee is authorized to conduct representative sampling at Outfall 005S for Outfall 009S, which is described in the Permittee's application as DP-7. The discharge at Outfall 005S 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)(5) 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 00625 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Nitrite Plus Nitrate Total (As N) 00630 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Phosphorus, Total 00665 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Flow, In Conduit or Thru Treatment Plant 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) See Part IV.G.3 for storm water monitoring requirements.

9. Outfall 006S Discharge Limits

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 006S, which is described more fully in the Permittee's application as DP-4. The Permittee is authorized to conduct representative sampling at Outfall 006S for Outfall 0010S, which is described in the Permittee's application as DP-8. The discharge at Outfall 006S 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)(5) 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 00625 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Nitrite Plus Nitrate Total (As N) 00630 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Phosphorus, Total 00665 SW 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	SW	GRAB	J	*****
Flow, In Conduit or Thru Treatment Plant 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) See Part IV.G.3 for storm water monitoring requirements.

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 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.

(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.I.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.

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 Outfalls 0011 and 0022.

   b. The samples shall be diluted using appropriate control water to the Instream Waste Concentration (IWC) which is **100 percent** 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 **October**. 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 JANUARY, APRIL, JULY, and OCTOBER.

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. MERCURY MINIMIZATION PLAN

1. Within 180 days from the effective date of this Permit or initial discharge, whichever is later, the Permittee shall submit to the Department a Mercury Minimization Plan (MMP) prepared by an Alabama Registered Professional Engineer. The MMP shall be revised as needed to efficiently and effectively reduce mercury discharges to the maximum extent practicable. Proposed revisions to the MMP may be submitted to the Department with the annual MMP status report or as needed for Departmental review. The initial plan shall, at a minimum, include:

   a. A program to identify and compile an inventory of potential sources of mercury which contribute to the discharge, including but not limited to, an assessment of the public water source, an assessment of the permittee's wastewater treatment chemicals containing mercury, dental offices, medical facilities, industrial or commercial users of the POTW, stormwater (including potential for atmospheric deposition within the treatment works), inflow and infiltration, school laboratories, and equipment containing mercury within the wastewater treatment works.
   b. A monitoring plan which considers monitoring and possible seasonal variations at, but not limited to, the influent to the POTW (including the public water source and atmospheric deposition), receiving water upstream of the POTW discharge to determine surface water background values, within the collection system (including identification of specific locations), and of potential industrial and/or commercial users, dental offices, medical facilities, and school laboratories. The monitoring plan should establish the initial frequency of proposed monitoring and shall utilize EPA Method 1631/1669 E, or an alternate method approved by the Department.
   c. Plans to develop and implement cost-effective control measures for identified sources of mercury. Examples include, but are not limited to, public education and outreach at identified sources, evaluation of chemical usage and equipment usage within the wastewater collection and treatment systems for potential replacement with materials that do not contain mercury, audits of industrial users, etc.
   d. Plans to develop a Public Education and Outreach program. Examples include identification to the public of recycling vendors who accept items containing mercury, a collection program for materials containing mercury for residents, news releases and public outreach to inform the public and/or potential sources of mercury of the issues associated with the inappropriate disposal of mercury, informational fact sheets for distribution where mercury containing products are purchased or used, etc.

2. If at least six months have passed since the submittal of the initial MMP, the Permittee shall submit an annual MMP status report by January 31st and each subsequent January 31st. Each element of the MMP should be addressed in the annual MMP status report, including but not limited to:

   a. Potential Sources: A list of potential mercury sources that have been previously or newly identified, including levels of mercury contribution(s) from each source, either measured or estimated/predicted, to the permittee's discharge.
   b. Monitoring Plan: A summary of all monitoring results not already submitted to the Department, including an analysis of all mercury monitoring results (i.e., trend analysis, if adequate data are available).
   c. Control Measures: Details of control measures designed and/or implemented since last report submittal.
   d. Public Education and Outreach: A summary of public education and outreach developed and/or conducted since the last report submittal.
   e. Proposed revisions to the MMP, including justification for each adjustment. Examples of adjustments could include changes in monitoring locations or frequencies based upon previous results, changes in public education and outreach methods, control measures, inventory of potential sources, etc.

G. 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.G.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.

H. 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.

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
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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: January 18, 2019 **Prepared By:** Stephanie Ammons

NPDES Permit No. AL0042234

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

   Baldwin County Sewer Service, LLC
   14747 Underwood Road
   Summerdale, Alabama 36580

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

   Spanish Fort Sewer WWTP
   12840 Highway 90
   Loxley, Alabama 36551

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

   Waste Water Treatment Plant

4. **Applicant's Receiving Waters**

Receiving Waters	Classifications
Bay Branch	F&W
Fish River (storm water only)	S, 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:

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)

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.

NPDES PERMIT RATIONALE

NPDES Permit No:	**AL0042234**	Date:	January 18, 2019
Permit Applicant:	Baldwin County Sewer Service, LLC 14747 Underwood Road Summerdale, Alabama 36580		
Location:	Spanish Fort Sewer WWTP 12840 Highway 90 Loxley, Alabama 36551		
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: Toxicity based: Secondary Treatment Levels: Other (described below):	CBOD5, NH3-N, DO DO, pH, TSS, CBOD5 Percent Removal, TSS Percent Removal 100% TRC TSS, CBOD5 Percent Removal, TSS Percent Removal pH, E. coli, Zinc	
Design Flow in Million Gallons per Day:		Outfall 001 – 0.25 MGD, Outfall 002 – 1.0 MGD	
Major:		Yes	
Description of Discharge:		Outfall Numbers 001 and 002; The effluent discharges to Bay Branch which is classified as Fish and Wildlife. Outfall Numbers 003, 005, and 006; Storm water discharges to Bay Branch which is classified as Fish and Wildlife. Outfall Number 004; Storm water discharges to Fish River which is classified as Swimming and Fish and Wildlife.	

Discussion: This is a permit reissuance due to expiration. The permittee currently operates two facilities located in close proximity to each other. Because of the close proximity of the discharge locations at Bay Branch, the two facilities are permitted as one source under one permit. The outfall located on the west side of Bay Branch, designated as Outfall 001, is discharged from a facility with a design capacity of 0.25 MGD. The outfall located on the east side of Bay Branch, designated as Outfall 002, is discharged from a facility with a design capacity of 1.0 MGD.

The permit regulates the discharges of treated domestic wastewater to Bay Branch, a Tier I water body classified as Fish and Wildlife in the Mobile Bay Basin. The Permittee asserts that there are no significant industrial dischargers (i.e., no SID permits) to the treatment plants. The discharges are composed entirely of treated domestic wastewater. Bay Branch is not listed on the most recent 303(d) list of impaired waters, and there currently is no Total Maximum Daily Load (TMDL) established for this waterbody. The discharges at Bay Branch are within a 24 hour travel time to Fish River. Fish River is classified as Swimming and Fish and Wildlife. Fish River is listed on the most recent 303(d) list for mercury impairment, and there is a Pathogens TMDL for Fish River.

The *Escherichia coli* (E. coli) limits were determined based on the water-use classification of the receiving stream. The discharge at Bay Branch is classified as Fish and Wildlife and is located within a 24 hour travel time to a Swimming classified water body. The more stringent Swimming limits apply. The limits are 126

col/100mL (monthly average) and 235 col/100mL (daily maximum) at Outfalls 001 and 002. These limits are consistent with the Fish River Pathogens TMDL which requires instream water quality criteria for pathogens at the point of discharge.

Limits for Dissolved Oxygen (DO), Five Day Carbonaceous Biochemical Oxygen Demand (CBOD5), and Total Ammonia as Nitrogen (NH3-N) were developed based on a Waste Load Allocation (WLA) model completed by ADEM's Water Quality Branch on April 1, 2016. Due to the proximity of Outfalls 001 and 002, the WLA model was developed using the combined design flow of 1.25 MGD. The monthly average CBOD5 limit for both outfalls is 10.0 mg/L. The monthly average NH3-N limit for both outfalls is 2.0 mg/L. The daily minimum DO limit for both outfalls is 6.0 mg/L.

In addition to NH3-N, the Permittee is required to monitor and report effluent test results for Total Phosphorus (TP), Total Kjeldahl Nitrogen (TKN), and Nitrite plus Nitrate-Nitrogen (NO2+NO3-N). 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. Monitoring at Outfall 001 is required during the growing season (April – October). Monitoring at Outfall 002 is required year-round.

The pH limits were developed in accordance with the water-use classification of the receiving stream. The pH limits are 6.0 s.u. (daily minimum) and 8.5 s.u. (daily maximum). These limits apply to Outfall 001 and Outfall 002.

The Total Residual Chlorine (TRC) limits are based on calculations to ensure that the acute and chronic toxic concentrations of TRC in the receiving stream are not exceeded. The TRC limits are 0.011 mg/L (monthly average) and 0.019 mg/L (daily maximum). These limits apply to Outfall 001 and Outfall 002. In accordance with a letter dated August 11, 1998 from EPA Headquarters and a 1991 memorandum from EPA Region 4's Environmental Services Division (ESD), due to testing and method detection limitations, a TRC measurement below 0.05 mg/L shall be considered below detection for compliance purposes. The TRC limits are provisional. If chlorine disinfection is utilized then the imposed TRC limits will apply.

The monthly average Total Suspended Solids (TSS) limit is established at 30.0 mg/L in accordance with 40 CFR 133.102. A minimum percent removal limit of 85.0 percent is imposed for TSS in accordance with 40 CFR 133.102. A minimum percent removal limit of 85.0 percent is imposed for CBOD5 in accordance with 40 CFR 133.102. These limits apply to Outfall 001 and Outfall 002.

The Department completed a reasonable potential analysis (RPA) of the Outfall 002 discharge based on data provided in the permittee's application and discharge monitoring reports (DMRs). The mercury data provided in the permittee's application was not analyzed using a sufficient method detection level for the Department to determine the impact on instream water quality standards. However, the DMR data provided by the permittee was analyzed using Low Level Mercury EPA test method 1631E which is a sufficient test method for analysis. The Department considered only the mercury data provided by the DMRs in the RPA. The Department also considers background data upstream of the point of discharge in RPAs; however, there is no available background data for this discharge. The RPA indicates whether pollutants in treated effluent have the potential to contribute to excursions of Alabama's instream water quality standards. Based on the RPA, it was determined that there is a reasonable potential for instream water quality standards for zinc and mercury to be exceeded. This permit will impose Total Recoverable Zinc limits of 197 µg/L (monthly average) and 197 µg/L (daily maximum) at Outfall 002. Since this facility does not accept wastewater from any significant industrial dischargers that are expected to contribute to mercury impairment, this permit imposes Total Recoverable Mercury monitoring in lieu of a permit limit at Outfall 002. In addition to monitoring, the permit requires the permittee to establish a Mercury Minimization Plan which requires the permittee to identify and compile an inventory of potential sources of mercury. The requirements of the Mercury Minimization Plan are described more fully in Part IV.F of the permit.

Chronic toxicity with two species (*Ceriodaphnia* and *Pimephales*) is being imposed in this permit. Toxicity testing is imposed for both survival and life-cyle impairment (i.e., growth and reproduction). Chronic toxicity testing is required on an annual basis at the calculated Instream Waste Concentration (IWC) of 100 percent. Toxicity testing is required at Outfalls 001 and 002.

In the permit application, the Permittee reported eight storm water outfalls from the treatment plant. Outfalls DP-1, DP-2, DP-3, and DP-4, as reported in the application, will correspond to 003S, 004S, 005S, and 006S, respectively, in the permit. The Permittee has indicated that the remaining storm water outfalls are similar in nature in terms of potential pollutants. At the Permittee's request, the Department is allowing representative

sampling at Outfalls 003S, 004S, 005S, and 006S. Monitoring will not be required at Outfalls 007S, 008S, 009S, and 0010S.

The frequency of monitoring for most parameters is two days per week at Outfall 001 and three days per week at Outfall 002. Monitoring for NO2+NO3-N, TKN, and TP is to be conducted monthly during the growing season at Outfall 001. Monitoring for Zinc, NO2+NO3-N, TKN, and TP is to be conducted monthly at Outfall 002. Monitoring for mercury is to be conducted quarterly at Outfall 002. Percent removals are to be calculated monthly. Flow is to be monitored continuously, seven days per week. Toxicity testing is to be conducted during the month of October. Storm water monitoring is to be conducted annually.

This permit imposes Sewer Overflow Response Plan (SORP) requirements. SORP requirements are described more fully in Part IV.G of the permit.

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 stream, so the applicant is not required to demonstrate that the discharge is necessary for economic and social development.

Prepared by: Stephanie Ammons

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	**Spanish Fort Sewer WWTP**	
NPDES Permit Number:	**AL0042234**	
Receiving Stream:	**Bay Branch**	
Facility Design Flow (Q_w):	**1.250 MGD**	
Receiving Stream $7Q_{10}$:	**0.000 cfs**	
Receiving Stream $1Q_{10}$:	**0.000 cfs**	
Winter Headwater Flow (WHF):	**N./A.**	
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.

$$\text{Stream Dilution Ration (SDR)} = \frac{Qw}{7Q10 + Qw} = \textbf{100.00\%}$$

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.

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

= **100.00%** **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**

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

= 2.2 mg/l NH3-N at 7Q10

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

= 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**	**2.20 mg/l NH3-N**
Winter	**N./A.**	**N./A.**

Per the April 1, 2016 memo from the Department's Water Quality Branch, a monthly average NH3-N limit of 2.0 mg/L should be protective of water quality.

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.

This is a minor facility (Qw < 1.0 MGD) with no SID permits. No toxicity testing is required.

Instream Waste Concentration (IWC) = $\frac{Qw}{7Q10 + Qw}$ = **100.00%** 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: **Swimming, 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):	126	**126**
Monthly limit as monthly aveage (May through October):	126	**126**
Daily Max (November through April):	235	**235**
Daily Max (May through October):	235	**235**
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:	0.011	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.019	(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: Stephanie Ammons Date: 2/6/2019

Facility Name: **Spanish Fort Sewer WWTP**

NPDES No.: **AL0042234**

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

ID	Pollutant	Carcinogen? Yes/No	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	35	5.83	0.210
6	Chromium / Chromium VI**		Metals	0	0	0	0	0	0	
7	Copper**		Metals	0	0	0	0	0	0	0.388
8	Lead**		Metals	0	0	0	0	0	0	0.208
9	Mercury**		Metals	0	0	0	0	0.124	0.0083	0.302
10	Nickel**		Metals	0	0	0	0	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	0	0	309	83.3	0.330
15	Cyanide		Metals	0	0	0	0	0	0	-
16	Total Phenolic Compounds		Metals	0	0	0	0	0	0	-
17	Hardness (As CaCO3)		Metals	0	0	0	0	45600	27475	-
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	**Chlorodibreme-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	0	0	-
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	**Trichloroethylene***	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-CD)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	-

1.25	Enter Q_d = wastewater discharge flow from facility (MGD)
1.93403625	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)
0	Enter 7Q10, Q_s = background stream flow in cfs above point of discharge
0	Enter or estimated, 1Q10, Q_s = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
6.72	Enter Mean Annual Flow, Q_s = background stream flow in cfs above point of discharge
0	Enter 7Q2, Q_s = background stream flow in cfs above point of discharge (For LWF class streams)
Enter to Left	Enter C_s = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
Q_s +Qd2+Q_d	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)
50	Enter, Background Hardness above point of discharge (assumed 50 South of Birmingham and 100 North of Birmingham)
7.00 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

January 17, 2019

Facility Name: Spanish Fort Sewer WWTP

NPDES No.: AL0042234

						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 from Carcinogen Q_s = 7Q10			
Freshwater F&W classification:					Max Daily Discharge as reported by Applicant (C_{max})					Avg Daily Discharge as reported by Applicant (C_{avg})									
ID	Pollutant	RP?	Carcinogen yes	Background from upstream source (Cd) Daily Max		Water Quality Criteria (C_d)	Draft Permit Limit (C_{max})	25% of Draft Permit Limit	RP?	Background from upstream source (Cd) Weekly Avg		Water Quality Criteria (C_d)	Draft Permit Limit (C_{avg})	25% of Draft Permit Limit	RP?	Water Quality Criteria (C_d)	Draft Permit Limit (C_{avg})	25% of Draft Permit Limit	RP?
1	Antimony			0	0	-	-	-	-	0	0	-	-	-	-	3.73E+02	3.73E+02	7.47E+01	No
2	Arsenic		YES	0	0	340.984	592.334	118.467	No	0	0	150.704	261.324	52.265	No	3.03E-01	1.36E+00	2.71E-01	No
3	Beryllium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
4	Cadmium			0	0	4.343	4.347	0.869	No	0	0	0.844	0.844	0.129	No	-	-	-	-
5	Chromium/ Chromium III			0	35	1537.913	1537.913	307.583	No	0	5.83	200.511	200.051	40.010	No	-	-	-	-
6	Chromium/ Chromium VI			0	0	16.000	16.000	3.200	No	0	0	11.000	11.000	2.200	No	-	-	-	-
7	Copper			0	0	18.026	18.026	3.605	No	0	0	12.766	12.766	2.553	No	-	-	-	-
8	Lead			0	0	146.291	146.291	29.258	No	0	0	5.701	5.701	1.140	No	-	-	-	-
9	Mercury	YES		0	0.124	2.400	2.400	0.480	No	0	0.0083	0.012	0.012	0.002	Yes	4.24E-02	4.24E-02	8.48E-03	No
10	Nickel			0	0	515.824	515.824	103.165	No	0	0	57.292	57.292	11.458	No	9.93E+02	9.93E+02	1.99E+02	No
11	Selenium			0	0	20.000	20.000	4.000	No	0	0	5.000	5.000	1.000	No	2.43E+03	2.43E+03	4.86E+02	No
12	Silver			0	0	0.975	0.975	0.195	No	0	0	-	-	-	-	-	-	-	-
13	Thallium			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
14	Zinc	YES		0	309	197.389	197.389	39.474	Yes	0	83.3	196.963	196.963	39.797	Yes	1.49E+04	1.49E+04	2.98E+03	No
15	Cyanide			0	0	22.000	22.000	4.400	No	0	0	5.200	5.200	1.040	No	9.33E+03	9.33E+03	1.87E+03	No
16	Total Phenolic Compounds			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
17	Hardness (As CaCO3)			0	45600	-	-	-	-	0	27475	-	-	-	-	-	-	-	-
18	Acrolein			0	0	-	-	-	-	0	0	-	-	-	-	5.43E+00	5.43E+00	1.09E+00	No
19	Acrylonitrile		YES	0	0	-	-	-	-	0	0	-	-	-	-	6.44E-01	6.44E-01	1.29E-01	No
20	Aldrin		YES	0	0	3.000	3.000	0.600	No	0	0	-	-	-	-	1.32E-04	1.32E-04	2.63E-05	No
21	Benzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	6.92E+01	6.92E+01	1.38E+01	No
22	Bromoform		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.52E+02	3.52E+02	7.05E+01	No
23	Carbon Tetrachloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.28E+00	4.28E+00	8.57E-01	No
24	Chlordane		YES	0	0	2.400	2.400	0.480	No	0	0	0.0043	0.004	0.001	No	2.12E-03	2.12E-03	4.23E-04	No
25	Clorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	9.08E+02	9.08E+02	1.81E+02	No
26	Chlorodibromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	3.31E+01	3.31E+01	6.63E+00	No
27	Chloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
28	2-Chloro-Ethylvinyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
29	ChloroForm		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.56E+02	4.56E+02	9.13E+01	No
30	4,4' - DDD		YES	0	0	-	-	-	-	0	0	-	-	-	-	8.12E-04	8.12E-04	1.62E-04	No
31	4,4' - DDE		YES	0	0	-	-	-	-	0	0	-	-	-	-	5.73E-04	5.73E-04	1.15E-04	No
32	4,4' - DDT		YES	0	1.100	1.100	1.100	0.220	No	0	0	0.001	0.001	0.000	No	5.73E-04	5.73E-04	1.15E-04	No
33	Dichlorobromo-Methane		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.49E+01	4.49E+01	8.98E+00	No
34	1, 1-Dichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
35	1, 2-Dichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	9.56E+01	9.56E+01	1.91E+01	No
36	Trans-1, 2-Dichloro-Ethylene			0	0	-	-	-	-	0	0	-	-	-	-	5.91E+03	5.91E+03	1.18E+03	No
37	1, 1-Dichloroethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.86E+04	1.86E+04	3.73E+03	No
38	1, 2-Dichloropropane			0	0	-	-	-	-	0	0	-	-	-	-	8.49E+00	8.49E+00	1.70E+00	No
39	1, 3-Dichloro-Propylene			0	0	-	-	-	-	0	0	-	-	-	-	1.23E+01	1.23E+01	2.46E+00	No
40	Dieldrin		YES	0	0	0.240	0.240	0.048	No	0	0	0.056	0.056	0.011	No	3.12E-05	1.40E-04	2.79E-05	No
41	Ethylbenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.24E+03	1.24E+03	2.49E+02	No
42	Methyl Bromide			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+02	8.71E+02	1.74E+02	No
43	Methyl Chloride			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
44	Methylene Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.55E+03	1.55E+03	3.09E+02	No
45	1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.04E+01	2.39E+00	2.09E+00	No
46	Tetrachloro-Ethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	8.85E+00	8.85E+00	1.72E+00	No
47	Toluene			0	0	-	-	-	-	0	0	-	-	-	-	8.72E+03	8.72E+03	1.74E+03	No
48	Toxaphene		YES	0	0	0.730	0.730	0.146	No	0	0	0.0002	0.000	0.000	No	7.25E-04	7.25E-04	1.45E-04	No
49	Tributyltin (TBT)		YES	0	0	0.460	0.460	0.092	No	0	0	0.072	0.072	0.014	No	-	-	-	-
50	1, 1, 1-Trichloroethane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
51	1, 1, 2-Trichloroethane		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.07E+01	4.07E+01	8.14E+00	No
52	Trichlorethylene		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.82E+01	7.82E+01	1.56E+01	No
53	Vinyl Chloride		YES	0	0	-	-	-	-	0	0	-	-	-	-	6.37E+00	6.37E+00	1.27E+00	No
54	P-Chloro-M-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
55	2-Chlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	8.71E+01	8.71E+01	1.74E+01	No
56	2, 4-Dichlorophenol			0	0	-	-	-	-	0	0	-	-	-	-	1.72E+02	1.72E+02	3.44E+01	No
57	2, 4-Dimethylphenol			0	0	-	-	-	-	0	0	-	-	-	-	4.96E+02	4.96E+02	9.95E+01	No
58	4, 6-Dinitro-O-Cresol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
59	2, 4-Dinitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	3.11E+03	6.22E+02	No
60	4,6-Dinitro-2-methylphenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.40E+02	7.40E+02	1.48E+02	No
61	Dioxin (2,3,7,8-TCDD)		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.19E-07	1.19E-07	2.39E-08	No
62	2-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
63	4-Nitrophenol			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
64	Pentachlorophenol		YES	0	0	8.723	8.723	1.745	No	0	0	6.693	6.693	1.339	No	7.91E+00	7.91E+00	1.58E+00	No
65	Phenol			0	0	-	-	-	-	0	0	-	-	-	-	5.00E+05	5.00E+05	1.00E+05	No
66	2, 4, 6-Trichlorophenol		YES	0	0	-	-	-	-	0	0	-	-	-	-	6.53E+00	6.53E+00	1.27E+00	No
67	Acenaphthene			0	0	-	-	-	-	0	0	-	-	-	-	5.79E+02	5.79E+02	1.16E+02	No
68	Acenaphthylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
69	Anthracene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+04	2.33E+04	4.67E+03	No
70	Benzidine			0	0	-	-	-	-	0	0	-	-	-	-	1.16E-04	1.16E-04	2.32E-05	No
71	Benzo(A)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.77E-02	4.77E-02	9.53E-03	No
72	Benzo(A)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.77E-02	4.77E-02	9.53E-03	No
73	Benzo(b)fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.07E-02	2.13E-03	No
74	Benzo(GHI)Perylene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
75	Benzo(K)Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	1.07E-02	1.07E-02	2.13E-03	No
76	Bis (2-Chloroethoxy) Methane			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
77	Bis (2-Chloroethyl)-Ether		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.38E+00	1.38E+00	2.75E-01	No
78	Bis (2-Chloroiso-Propyl) Ether			0	0	-	-	-	-	0	0	-	-	-	-	3.78E+04	3.78E+04	7.56E+03	No
79	Bis (2-Ethylhexyl) Phthalate		YES	0	0	-	-	-	-	0	0	-	-	-	-	5.74E+00	5.74E+00	1.15E+00	No
80	4-Bromophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
81	Butyl Benzyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	1.13E+03	1.13E+03	2.25E+02	No
82	2-Chloronaphthalene			0	0	-	-	-	-	0	0	-	-	-	-	9.24E+02	9.24E+02	1.85E+02	No
83	4-Chlorophenyl Phenyl Ether			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
84	Chrysene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.77E-02	4.77E-02	9.53E-03	No
85	Di-N-Butyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.62E+03	2.62E+03	5.24E+02	No
86	Di-N-Octyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
87	Dibenzo(A,H)Anthracene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.77E-02	4.77E-02	9.53E-03	No
88	1, 2-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	7.55E+02	7.55E+02	1.51E+02	No
89	1, 3-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	5.62E+02	5.62E+02	1.12E+02	No
90	1, 4-Dichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	1.12E+02	1.12E+02	2.25E+01	No
91	3, 3-Dichlorobenzidine		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.44E-02	7.44E-02	1.49E-02	No
92	Diethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	2.56E+04	2.56E+04	5.11E+03	No
93	Dimethyl Phthalate			0	0	-	-	-	-	0	0	-	-	-	-	6.48E+05	6.48E+05	1.30E+05	No
94	2, 4-Dinitrotoluene		YES	0	0	-	-	-	-	0	0	-	-	-	-	8.86E+00	8.86E+00	1.77E+00	No
95	2, 6-Dinitrotoluene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
96	1,2-Diphenylhydrazine			0	0	-	-	-	-	0	0	-	-	-	-	1.17E-01	1.17E-01	2.34E-02	No
97	Endosulfan (alpha)		YES	0	0	0.22	0.220	0.044	No	0	0	0.056	0.056	0.011	No	2.32E+02	2.32E+02	4.64E+01	No
98	Endosulfan (beta)		YES	0	0	0.22	0.220	0.044	No	0	0	0.056	0.056	0.011	No	2.32E+02	2.32E+02	4.64E+01	No
99	Endosulfan sulfate		YES	0	0	-	-	-	-	0	0	-	-	-	-	2.32E+02	2.32E+02	4.64E+01	No
100	Endrin		YES	0	0	0.086	0.086	0.017	No	0	0	0.036	0.036	0.007	No	1.59E-02	1.59E-02	3.16E-02	No
101	Endrin Aldeyhde		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.69E-01	7.69E-01	1.58E-01	No
102	Fluoranthene			0	0	-	-	-	-	0	0	-	-	-	-	8.12E+01	8.12E+01	1.62E+01	No
103	Fluorene			0	0	-	-	-	-	0	0	-	-	-	-	3.11E+03	3.11E+03	6.22E+02	No
104	Heptochlor		YES	0	0	0.52	0.520	0.104	No	0	0	0.00248	0.004	0.001	No	2.07E-04	2.07E-04	4.14E-05	No
105	Heptachlor Epoxide		YES	0	0	0.52	0.520	0.104	No	0	0	0.00248	0.004	0.001	No	1.02E-04	1.02E-04	2.05E-05	No
106	Hexachlorobenzene		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.51E-04	7.51E-04	1.50E-04	No
107	Hexachlorobutadiene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.81E+01	4.81E+01	9.63E+00	No
108	Hexachlorocyclohexan (alpha)		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.27E-02	1.27E-02	2.55E-03	No
109	Hexachlorocyclohexan (beta)		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.46E-02	4.46E-02	8.92E-03	No
110	Hexachlorocyclohexan (gamma)		YES	0	0	0.95	0.950	0.190	No	0	0	-	-	-	-	9.64E-01	4.62E+00	9.64E-01	No
111	HexachlorocycloPentadiene			0	0	-	-	-	-	0	0	-	-	-	-	6.45E+02	6.45E+02	1.29E+02	No
112	Hexachloroethane			0	0	-	-	-	-	0	0	-	-	-	-	1.92E+00	1.92E+00	3.84E-01	No
113	Indeno(1, 2, 3-CK)Pyrene		YES	0	0	-	-	-	-	0	0	-	-	-	-	4.77E-02	4.77E-02	9.53E-03	No
114	Isophorone			0	0	-	-	-	-	0	0	-	-	-	-	5.61E+02	5.61E+02	1.12E+02	No
115	Naphthalene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
116	Nitrobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.04E+02	4.04E+02	8.07E+01	No
117	N-Nitrosodi-N-Propylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.32E+00	1.32E+00	2.64E-01	No
118	N-Nitrosodimethylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	7.87E+00	7.87E+00	1.57E+00	No
119	N-Nitrosodiphenylamine		YES	0	0	-	-	-	-	0	0	-	-	-	-	1.57E+01	1.57E+01	3.13E+00	No
120	PCB-1016		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.67E-04	1.67E-04	3.35E-05	No
121	PCB-1221		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.67E-04	1.67E-04	3.35E-05	No
122	PCB-1232		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.67E-04	1.67E-04	3.35E-05	No
123	PCB-1242		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.67E-04	1.67E-04	3.35E-05	No
124	PCB-1248		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.67E-04	1.67E-04	3.35E-05	No
125	PCB-1254		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.67E-04	1.67E-04	3.35E-05	No
126	PCB-1260		YES	0	0	-	-	-	-	0	0	0.014	0.014	0.003	No	1.67E-04	1.67E-04	3.35E-05	No
127	Phenanthrene			0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-
128	Pyrene			0	0	-	-	-	-	0	0	-	-	-	-	2.33E+03	2.33E+03	4.67E+02	No
129	1, 2, 4-Trichlorobenzene			0	0	-	-	-	-	0	0	-	-	-	-	4.09E+01	4.09E+01	8.19E+00	No

Spanish Fort WWTP
Permit No. AL0042234
Total Recoverable Mercury DMR Data

Monitoring Period End Date	Monthly Average (ug/L)	Daily Maximum (ug/L)
March 2014	0.0014	0.00114
June 2014	0.00304	0.00304
September 2014	0.00253	0.00253
December 2014	0.000877	0.000877
March 2015	0.00109	0.00109
June 2015	0.0005	0.0005
September 2015	0.00592	0.00592
December 2015	0.0002	0.0002
March 2016	0.0016	0.0016
June 2016	0.00282	0.00282
September 2016	0.0018	0.0018
December 2016	0.00097	0.00097
March 2017	0.0014	0.0014
June 2017	0.0021	0.0021
September 2017	0.00178	0.00178
December 2017	0.00242	0.00242
March 2018	0.00322	0.00322
June 2018	0.124	0.124
September 2018	0.000784	0.000784

Monthly Average = 0.0083 ug/L
Daily Maximum = 0.124 ug/L

Spanish Fort WWTP
Permit No. AL0042234
Total Recoverable Zinc Data

Monitoring Period	Monthly Average (mg/L)	Maximum Daily (mg/L)
February 2014	0.052	0.052
March 2014	0.079	0.079
April 2014	0.05	0.05
May 2014	0.088	0.088
June 2014	0.109	0.109
July 2014	0.0051	0.0051
August 2014	0.05	0.05
September 2014	0.103	0.103
October 2014	0.169	0.169
November 2014	0.309	0.309
December 2014	0.088	0.088
January 2015	0.124	0.124
Febraury 2015	0.017	0.017
March 2015	0.071	0.071
April 2015	0.005	0.005
May 2015	0.013	0.013
June 2015	0.073	0.073
July 2015	0.027	0.027
August 2015	0.005	0.005
September 2015	0.017	0.017
October 2015	0.1	0.1
November 2015	0.1	0.1
December 2015	0.1	0.1
January 2016	0.1	0.1
February 2016	0.1	0.1
March 2016	0.1	0.1
April 2016	0.1	0.1
May 2016	0.1	0.1
June 2016	0.1	0.1
July 2016	0.1	0.1
August 2016	0.1	0.1
September 2016	0.1	0.1
October 2016	0.1	0.1
November 2016	0.1	0.1
December 2016	0.1	0.1
January 2017	0.1	0.01
February 2017	0.1	0.1
March 2017	0.1	0.1
April 2017	0.1	0.1
May 2017	0.1	0.1
June 2017	0.1	0.1
July 2017	0.16	0.16
August 2017	0.069	0.069
September 2017	0.104	0.104
October 2017	0.095	0.095
November 2017	0.075	0.075
December 2017	0.085	0.085
January 2018	0.086	0.086
February 2018	0.077	0.077
March 2018	0.067	0.067
April 2018	0.094	0.094
May 2018	0.07	0.07
June 2018	0.067	0.067
July 2018	0.0891	0.0831
August 2018	0.0922	0.0922
September 2018	0.0493	0.0493
October 2018	0.066	0.066
November 2018	0.067	0.067
Application 1	0.086	0.086
Application 2	0.074	0.074
Application 3	0	0
Application 4	0.0721	0.0721
Application 5	0.0732	0.0732
Application 6	0.065	0.065

Monthly Average = 0.0833 mg/L
Daily Maximum = 0.309 mg/L

LANCE R. LEFLEUR
DIRECTOR

ROBERT J. BENTLEY
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

April 1, 2016

MEMORANDUM

TO: Spanish Fort Sewer WWTP

FROM: Jonathan Straiton, Water Quality Branch

RE: Waste Load Allocation for Spanish Fort Sewer WWTP for permit reissuance

An updated annual desktop model was completed for the Spanish Fort Sewer WWTP on April 1, 2016 for the purpose of permit reissuance. The previous model on file was completed by Charlie Reynolds in 2006. The facility has a discharge flow rate of 1.25 MGD year-round which flows into Bay Branch, then into Fish River.

The model predicts that the following effluent limits will maintain the required dissolved oxygen concentration of 5.0 mg/L.

Parameter	Limits
$CBOD_5$	10.0 mg/L
NH_3-N	2.0 mg/L
Minimum D.O.	6.0 mg/L

Bay Branch (Baldwin County, AL) is classified as Fish and Wildlife and is considered to be a Tier I water.

The $7Q_{10}$ and $7Q_2$ flow rates at the discharge site were found to be 0 cfs. For the model, an ultimate to five-day CBOD ratio of 1.5 was used for municipal facilities. It was determined that the ammonia concentration is toxicity based.

JBS: jbs

Facility:	Spanish Fort Sewer WWTP
Permit:	*#AL0042234*
Receiving Waterbody:	Bay Branch
County:	Baldwin
Date Completed:	April 1, 2016
Performed by:	Jonathan Straiton, *Water Quality*

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
4171 Commanders Drive
Mobile, AL 36615-1421
(251) 432-6533
(251) 432-6598 (FAX)

Waste Load Allocation Summary

REQUEST INFORMATION

request number: 3287

From:	Stephanie Ammons	In Branch/Section	Municipal		
Date Submitted	12/18/2015	Date Required	5/18/2016	FUND Code	605
Receiving Waterbody	Bay Branch	Date Permit application received by NPDES program	11/5/2015		
Previous Stream					
Facility	Spanish Fort Sewer WWTP	(Name of Discharger-WQ will use to file)			
	Plantation Hills WWTP	Previous Discharger Name			
River Basin	Mobile	Outfall Latitude	30.6331	(decimal degrees)	
*County	Baldwin	Outfall Longitude	-87.81822	(decimal degrees)	
Permit Number	AL0042234	Perm	Permit Reissuance		
		Perm	Active		
		Type of Discharger	MUNICIPAL		

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

If yes, impacting dischargers names.	Golden Triangle WWTP Loxley WWTP	Impacting dischargers permit numbers.	AL0078794 AL0060283

Existing Discharge Design	1.25	MGD
Proposed Discharge Design	1.25	MGD

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

Comments included ☑ Yes ☐ No

Information Verified By: JBS

Year File Was Created: 2001

Lat/Long Method: GPS

12 Digit HUC Code	031602050201		
Use Classification	F&W		
Site Visit Completed?	☑ ☐	Date of Site Visit	1/14/2016
Waterbody Impaired?	☐ ☑	Date of WLA Response	4/1/2016
Antidegradation	☐ Yes ☑ No	Approved TMDL?	☐ ☑
Waterbody Tier Level	Tier I		
Use Support Category	3	Approval Date of TMDL	

Waste Load Allocation Information

Modeled Reach Length	12.63 Miles	Date of Allocation	4/1/2016
	SWQM	Allocation Type	Annual
	JBS	Type of Model Used	Desk-top
Allocation Developed by	Water Quality Branch		

Waste Load Allocation Summary

Annual Effluent Limits		
Qw	1.25	MGD
CBOD5	10	mg/L
NH3-N	2	mg/L
TKN		mg/L
D.O.	6	mg/L

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
TP	Monthly		
TKN	Monthly		
NO2+NO3-N	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: Estimated

			Method Used to Calculate
Drainage Area	3.2	sq mi	
Stream 7Q10	0	cfs	<5.0 sq mi
	0	cfs	<5.0 sq mi
Stream 7Q2	0	cfs	<5.0 sq mi
	6.72	cfs	ADEM Estimate w/USGS Gage Data

Comments and/or Notations: Facility is included in Fish River pathogens TMDL. Discharge is within 24-hour travel time to Fish River, which is classified as S/F&W.

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

For Approved. OMB No. 2040-0086. Approval expires 5-31-92

FORM 1 GENERAL

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F	AL0042234		D
1	2 — 13	14	15

LABEL ITEMS

- I. EPA I.D. NUMBER
- III. FACILITY NAME
- V. FACILITY MAILING LIST
- VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

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 proved. Refer to the instructions for detailed item descriptions and for the legal authorization 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 from 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)	☒ 16	☐ 17	☐ 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	☒ 20	☐ 21
C. Is this facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	☐ 22	☒ 23	☐ 24	D. Is this proposal 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	☒ 26	☐ 27
E. Does or will this facility treat, store, or dispose of **hazardous wastes?** (FORM 3)	☐ 28	☒ 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	☒ 32	☐ 33
G. Do you or will you inject at this facility any produced water 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	☒ 35	☐ 36	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfer by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	☐ 37	☒ 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	☒ 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 are?** (FORM 5)	☐ 43	☒ 44	☐ 45

III. NAME OF FACILITY

C 1 | SKIP (16-29) | ***Spanish Fort Sewer WWTP*** (30 — 69)

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
C 2 — ***Burke, Clarence; Owner/Manager*** (16 — 45)	***251*** (46 48) — ***971*** (49 51) — ***3022*** (52 55)

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

C 3 — ***P.O. Box 1628*** (16 — 45)

B. CITY OR TOWN	C. STATE	D. ZIP CODE
C 4 — ***Foley*** (16 — 40)	***AL*** (41 42)	***36536*** (47 51)

VI. FACILITY LOCATION

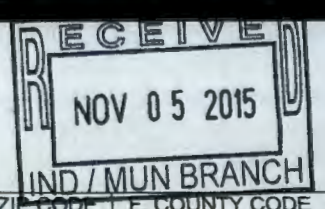
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

C 5 — ***12840 Highway 90*** (16 — 45)

B. COUNTY NAME

Baldwin (46 — 70)

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE
C 6 — ***Loxley*** (16 — 40)	***AL*** (41 42)	***36551*** (47 51)	(52 54)



CONTINUED ON REVERSE

CONTINUED FROM THE FRONT

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

A. FIRST		B. SECOND	
4952	(specify) Wastewater Treatment		(specify)
C. THIRD		D. FOURTH	
	(specify)		(specify)

VIII. OPERATOR INFORMATION

A. NAME	B. Is the name listed in Item VIII-A also the owner?
David Flesch	☐ YES ☒ NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other," specify.)

F = FEDERAL; M = PUBLIC (other than federal or state); S = STATE; O = OTHER (specify); P = PRIVATE

P (specify)

D. PHONE (area code & no.): 251 747 2977

E. STREET OR PO BOX: 12840 Highway 90

F. CITY OR TOWN	G. STATE	H. ZIP CODE
Loxley	AL	36551

IX. INDIAN LAND

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)	
AL0042234	P	
B. UIC (Underground Injection of Fluids)	E. OTHER (specify)	(Specify)
U		
C. RCRA (Hazardous Wastes)	E. OTHER (specify)	(Specify)
R		

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)

Wastewater Treatment Facility (1.0 MGD design) - Secondary Treatment - Activated Sludge

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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
Clarence E. Burke, Jr.; Owner/Manager		11-3-15

COMMENTS FOR OFFICIAL USE ONLY

C

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTF; AL0042234

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

FORM 2A NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

A. Basic Application Information for all Applicants. All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.

B. Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd. All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.

C. Certification. All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

D. Expanded Effluent Testing Data. A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to provide the information.

E. Toxicity Testing Data. A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):

1. Has a design flow rate greater than or equal to 1 mgd,
2. Is required to have a pretreatment program (or has one in place), or
3. Is otherwise required by the permitting authority to submit results of toxicity testing.

F. Industrial User Discharges and RCRA/CERCLA Wastes. A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:

1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
2. Any other industrial user that:
   a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
   b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
   c. Is designated as an SIU by the control authority.

G. Combined Sewer Systems. A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTP AL0042234

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: SPANISH FORT SEWER WWTP

Mailing Address: P.O. BOX 1628
FOLEY, AL 36536

Contact person: CLARENCE E. BURKE, JR.

Title: OWNER/MANAGER

Telephone number: (251) 971-3022

Facility Address (not P.O. Box): 12840 HIGHWAY 90
LOXLEY, AL 36551

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

Applicant name: SPANISH FORT SEWER WWTP

Mailing Address: P.O. BOX 1628
FOLEY, ALABAMA 36536

Contact person: CLARENCE E. BURKE, JR.

Title: OWNER/MANAGER

Telephone number: (251) 971-3022

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	AL0042234	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
Baldwin County	22,108	SEPARATE	BCSS

Total population served 22,108

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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 1.00 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	0.93	1.00	1.09	mgd
c. Maximum daily flow rate	1.25	1.81	1.78	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 _____

iii. Combined sewer overflow points _____

iv. Constructed emergency overflows (prior to the headworks) _____

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

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 0.25 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	0.00	0.00	0.00	mgd
c. Maximum daily flow rate	0.00	0.00	0.00	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	
iii. Combined sewer overflow points	
iv. Constructed emergency overflows (prior to the headworks)	
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?

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTP AL0042234

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

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: 0022(1.0 MGD)

b. Location:
Loxley (City or town, if applicable) — 36551 (Zip Code)
Baldwin (County) — AL (State)
30 degrees 37 minutes 58.92 seconds (Latitude) — -87 degrees 49 minutes 7.56 seconds (Longitude)

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

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

e. Average daily flow rate: 1.09 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: Bay Branch Creek

b. Name of watershed (if known): Mobile Bay, Alabama

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

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

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 03160205

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 $CaCO_3$

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 0011(0.25MGD)

b. Location
Loxley (City or town, if applicable) 36551 (Zip Code)
Baldwin (County) Alabama (State)
30 degrees 37 minutes 59.82 seconds (Latitude) -87 degrees 49 minutes 5.22 seconds (Longitude)

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

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

e. Average daily flow rate 0.00 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 Bay Branch Creek

b. Name of watershed (if known) _____

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

c. Name of State Management/River Basin (if known): Mobile Bay, Alabama

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): 03160205

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 $CaCO_3$

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.

UV

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: 022

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	6.00	s.u.			
pH (Maximum)	7.60	s.u.			
Flow Rate	1.26	MGD	0.85	Mgd	12.00
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	9.60	Mg/l	3.50	Mg/l	24.00	SM-5210B	1
FECAL COLIFORM		2,450.00	col/100ml	8.00	col/100ml	24.00	EPA 1604	dilution method
TOTAL SUSPENDED SOLIDS (TSS)		39.00	Mg/l	5.50	Mg/l	24.00	SM-2540D	0.5mg/L

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.

25,000.00 gpd

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

continue to monitor the system and respond to callouts for force main repairs

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.

_____

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 0.1 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: 0022

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)	5.90	mg/l	1.20	mg/l	17.00	SM 4500 NH3-N	
CHLORINE (TOTAL RESIDUAL, TRC)							
DISSOLVED OXYGEN	9.00	mg/l	7.70	mg/l	17.00	SM 4500 O2	
TOTAL KJELDAHL NITROGEN (TKN)	4.00	mg/l	1.94	mg/l	9.00	SM 4500 N-org	
NITRATE PLUS NITRITE NITROGEN	6.90	mg/l	4.80	mg/l	9.00	EPA 353.2	
OIL and GREASE							
PHOSPHORUS (Total)	3.86	mg/l	2.56	mg/l	9.00	SM 4500-P	
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER							

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

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTF; AL0042234

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

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: Clarence E. Burke, Jr.; Owner/Manager

Signature: 

Telephone number: (251) 971-3022

Date signed: 11-3-15

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:
Spanish Fort Sewer WWTF; AL0042234

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

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: 0022 (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	0.10	mg/l	1.05	#/d	0.10	mg/l	0.70	#/d	3.00	SM3111B	0.1
ARSENIC	0.01	mg/l	0.11	#/d	0.01	mg/l	0.07	#/d	3.00	EPA200.9	0.01
BERYLLIUM	0.01	mg/l	0.11	#/d	0.01	mg/l	0.07	#/d	3.00	EPA200.9	0.01
CADMIUM	0.01	mg/l	0.05	#/d	0.01	mg/l	0.04	#/d	3.00	EPA200.9	0.005
CHROMIUM	0.04	mg/l	0.37	#/d	0.02	mg/l	0.14	#/d	3.00	EPA200.9	0.01
COPPER	0.01	mg/l	0.05	#/d	0.01	mg/l	0.04	#/d	3.00	SM3111B	0.005
LEAD	0.01	mg/l	0.11	#/d	0.01	mg/l	0.07	#/d	3.00	EPA200.9	0.01
MERCURY	0.00	mg/l	0.01	#/d	0.00	mg/l	0.01	#/d	3.00	EPA245.1	0.001
NICKEL	0.01	mg/l	0.11	#/d	0.01	mg/l	0.07	#/d	3.00	SM3111B	0.01
SELENIUM	0.01	mg/l	0.11	#/d	0.01	mg/l	0.07	#/d	3.00	EPA200.9	0.01
SILVER	0.01	mg/l	0.11	#/d	0.01	mg/l	0.07	#/d	3.00	SM3111B	0.01
THALLIUM	0.02	mg/l	0.21	#/d	0.02	mg/l	0.14	#/d	3.00	EPA200.9	0.02
ZINC	0.09	mg/l	0.90	#/d	0.08	mg/l	0.50	#/d	3.00	SM3111B	0.005
CYANIDE	0.01	mg/l	0.11	#/d	0.01	mg/l	0.07	#/d	3.00	SM4500CN	0.01
TOTAL PHENOLIC COMPOUNDS	0.05	mg/l	0.53	#/d	0.05	mg/l	0.35	#/d	3.00	EPA420.4	0.05
HARDNESS (AS $CaCO_3$)	29.67	mg/l	313.00	#/d	12.45	mg/l	88.00	#/d	3.00	SM3111B	1
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer.											

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTF; AL0042234

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

Outfall number: 0022 (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		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN	50.00	ug/l	0.53	#/d	50.00	ug/l	0.35	#/d	3.00	EPA624	50
ACRYLONITRILE	10.00	ug/l	0.11	#/d	7.00	ug/l	0.05	#/d	3.00	EPA624	1
BENZENE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
BROMOFORM	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
CARBON TETRACHLORIDE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
CLOROBENZENE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
CHLORODIBROMO-METHANE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
CHLOROETHANE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
2-CHLORO-ETHYLVINYL ETHER	5.00	ug/l	0.05	#/d	5.00	ug/l	0.04	#/d	3.00	EPA624	5
CHLOROFORM	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
DICHLOROBROMO-METHANE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
1,1-DICHLOROETHANE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
1,2-DICHLOROETHANE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
TRANS-1,2-DICHLORO-ETHYLENE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
1,1-DICHLOROETHYLENE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
1,2-DICHLOROPROPANE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
1,3-DICHLORO-PROPYLENE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
ETHYLBENZENE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
METHYL BROMIDE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
METHYL CHLORIDE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
METHYLENE CHLORIDE	5.00	ug/l	0.05	#/d	5.00	ug/l	0.04	#/d	3.00	EPA624	5
1,1,2,2-TETRACHLORO-ETHANE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
TETRACHLORO-ETHYLENE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
TOLUENE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTF; AL0042234

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

Outfall number: 0022 (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		
1,1,1-TRICHLOROETHANE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
1,1,2-TRICHLOROETHANE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
TRICHLORETHYLENE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
VINYL CHLORIDE	1.00	ug/l	0.01	#/d	1.00	ug/l	0.01	#/d	3.00	EPA624	1
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	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
2-CHLOROPHENOL	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
2,4-DICHLOROPHENOL	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
2,4-DIMETHYLPHENOL	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
4,6-DINITRO-O-CRESOL	25.00	ug/l	0.26	#/d	25.00	ug/l	0.18	#/d	3.00	EPA625	25
2,4-DINITROPHENOL	25.00	ug/l	0.26	#/d	25.00	ug/l	0.18	#/d	3.00	EPA625	25
2-NITROPHENOL	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
4-NITROPHENOL	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
PENTACHLOROPHENOL	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
PHENOL	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
2,4,6-TRICHLOROPHENOL	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer.											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
ACENAPHTHYLENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
ANTHRACENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
BENZIDINE	95.00	ug/l	1.00	#/d	95.00	ug/l	0.68	#/d	3.00	EPA625	95
BENZO(A)ANTHRACENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
BENZO(A)PYRENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10

FACILITY NAME AND PERMIT NUMBER:
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Outfall number: 0022 (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		
3,4 BENZO-FLUORANTHENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
BENZO(GHI)PERYLENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
BENZO(K)FLUORANTHENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
BIS (2-CHLOROETHOXY) METHANE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
BIS (2-CHLOROETHYL)-ETHER	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
BIS (2-CHLOROISO-PROPYL) ETHER	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
BIS (2-ETHYLHEXYL) PHTHALATE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
4-BROMOPHENYL PHENYL ETHER	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
BUTYL BENZYL PHTHALATE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
2-CHLORONAPHTHALENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
4-CHLORPHENYL PHENYL ETHER	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
CHRYSENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
DI-N-BUTYL PHTHALATE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
DI-N-OCTYL PHTHALATE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
DIBENZO(A,H) ANTHRACENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
1,2-DICHLOROBENZENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
1,3-DICHLOROBENZENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
1,4-DICHLOROBENZENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
3,3-DICHLOROBENZIDINE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
DIETHYL PHTHALATE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
DIMETHYL PHTHALATE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
2,4-DINITROTOLUENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
2,6-DINITROTOLUENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
1,2-DIPHENYLHYDRAZINE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTF; AL0042234

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OMB Number 2040-0086

Outfall number: 0022 (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		
FLUORANTHENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
FLUORENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
HEXACHLOROBENZENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
HEXACHLOROBUTADIENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
HEXACHLOROCYCLO-PENTADIENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
HEXACHLOROETHANE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
INDENO(1,2,3-CD)PYRENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
ISOPHORONE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
NAPHTHALENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
NITROBENZENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00		10
N-NITROSODI-N-PROPYLAMINE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
N-NITROSODI- METHYLAMINE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
N-NITROSODI-PHENYLAMINE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
PHENANTHRENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
PYRENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
1,2,4-TRICHLOROBENZENE	10.00	ug/l	0.10	#/d	10.00	ug/l	0.07	#/d	3.00	EPA625	10
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:
Spanish Fort Sewer WWTF; AL0042234

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

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: 1,013 Test number: 1,012 Test number: 1,014

a. Test information.

Test species & test method number	P. Promelas/C. Daphnia	P. Promelas/C. Daphnia	P. Promelas/C.Daphnia
Age at initiation of test	< 24 hrs	< 24 hrs	< 24 hrs
Outfall number	0022	0022	0022
Dates sample collected	10/14/2013	10/23/2012	10/13/2014
Date test started	10/15/2013	10/24/2012	10/14/2014
Duration	7 days	7 days	7 days

b. Give toxicity test methods followed.

Manual title	Short Term Methods for	estimating the Chronic Toxicity	of effluents to freshwater org.
Edition number and year of publication	4th Ed. (USEPA, 2002, EPA	821-R-02-013	
Page number(s)			

c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite	X	x	x
Grab			

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection			
After disinfection	X	x	x
After dechlorination			

FACILITY NAME AND PERMIT NUMBER: Spanish Fort Sewer WWTF; AL0042234			*Form Approved 1/14/99 OMB Number 2040-0086*
	Test number: 1,013.(	Test number: 1,012.(	Test number: 1,014.(
e. Describe the point in the treatment process at which the sample was collected.			
Sample was collected:	after disinfection	after disinfection	after disinfectoin
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.			
Chronic toxicity	X	X	x
Acute toxicity			
g. Provide the type of test performed.			
Static			
Static-renewal	X	X	x
Flow-through			
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.			
Laboratory water	MHRW	RCF	MHRW
Receiving water			
i. Type of dilution water. It salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh water			
Salt water			
j. Give the percentage effluent used for all concentrations in the test series.			
	48%	48%	48%
	48%	48%	48%
	48%	48%	48%
k. Parameters measured during the test. (State whether parameter meets test method specifications)			
pH	7.14	6.1	6.17
Salinity			
Temperature		1 deg C	3.5
Ammonia	1.7 mg/l		1.8
Dissolved oxygen	7.62 mg/l		7.79
l. Test Results.			
Acute:			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

Chronic:			
NOEC	%	%	%
IC_{25}	%	%	%
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)?	10/01/2013	09/25/2012	10/14/2014
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: 11-3-15 (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.

Energy Technical Services, LLC
Northport, Alabama 205.330.7994
Mobile, Alabama 251.436.8880
fuels - water - environmental

Analytical Report

Customer: Baldwin County Sewer Services
14747 Underwood Road
Summerdale, AL 36580

Date/Time collected: 12/16/13 12:41
Sampled by: Sampler, Client
Sample type: Grab/Composite
Customer ID: Effluent

Project Name: EPA 2A Permit Renewal
ETS Sample ID: 131216R001
Location: Outfall 002

Analyte	Analysis Started Date/Time/Analyst	Result	Units	Det Lim	Dil. Factor	Method
Ammonia (NH3)	12/20/2013 12:00 RAW	0.31	mg/L	0.05	1	EPA 350.1
Antimony, Total or Recoverable	12/27/2013 10:58 JCG	<0.1	mg/L	0.1	1	SM 3111 B 1999
Arsenic, Total or Recoverable	12/30/2013 17:24 TA	<0.01	mg/L	0.01	1	EPA 200.7
Beryllium, Total or Recoverable	12/30/2013 14:39 KJD	<0.01	mg/L	0.01	1	SM 3111 D 1999
Cadmium, Total or Recoverable	12/26/2013 15:52 JCG	< 0.005	mg/L	0.005	1	SM 3111 B 1999
Carbonaceous BOD, C-BOD	12/18/2013 12:15 RAW	3.49	mg/L	2.0		SM 5210 B 2001
Chromium, Total or Recoverable	12/30/2013 17:24 TA	<0.01	mg/L	0.01	1	EPA 200.7
Copper, Total or Recoverable	12/26/2013 10:47 JCG	< 0.005	mg/L	0.005	1	SM 3111 B 1999
Cyanide	12/27/2013 10:00 RAW	< 0.01	mg/L	0.01	1	SM 4500 CN B&E
Dissolved Oxygen	12/16/2013 14:32 TLC	9.21	mg/L			SM 4500 O G 2001
E. coli	12/16/2013 17:20 PP	866	MPN/100ml	1	1	SM 9223 B 2004
Hardness as CaCO3	12/31/2013 09:45 LSW	29.67	mg/L	1.0		SM 3111 B 1999
Lead, Total or Recoverable	12/27/2013 09:32 JCG	<0.01	mg/L	0.01	1	SM 3111 B 1999
Mercury	12/26/2013 13:00 JCG	< 0.001	mg/L	0.001	1	EPA 245.1
Nickel, Total or Recoverable	12/30/2013 08:53 JCG	<0.01	mg/L	0.01	1	SM 3111 B 1999
Nitrate	12/31/2013 15:30 RAW	8.11	mg/L	0.10	1	EPA 353.2 1993
Nitrite	12/17/2013 10:00 RAW	< 0.10	mg/L	0.10	1	USGS I 4540-85
Oil & Grease (O&G)	12/27/2013 08:30 PP	1.4	mg/L	1.0	1	EPA 1664B 2010
Phenols, Total	1/3/2014 12:54 TA	<0.05	mg/L	0.05	1	EPA 420.4
pH-Field	12/16/2013 14:32 TLC	6.41	S. U.			SM 4500-H+B 2000
Phosphorus, Total (PO4)	12/19/2013 08:40 PP	4.09	mg/L	0.05	1	EPA 365.3 1978
Residual Chlorine	12/16/2013 14:32 TLC	0.05	mg/L	0.01		SM 4500 Cl G 2000
Selenium, Total or Recoverable	12/30/2013 17:24 TA	<0.01	mg/L	0.01	1	EPA 200.7
Silver, Total or Recoverable	12/30/2013 17:24 TA	<0.01	mg/L	0.01	1	EPA 200.7
Temperature, C	12/16/2013 14:32 TLC	17.8	C	0.01		SM 2550 B 2000
Thallium, Total or Recoverable	12/30/2013 10:32 JCG	<0.02	mg/L	0.02	1	SM 3111 B 1999
Total Dissolved Solids (TDS)	12/17/2013 09:45 RAW	140	mg/L	1.0	1	SM 2540 C 1997
Total Keldjahl Nitrogen (TKN)	12/26/2013 10:15 PP	0.96	mg/L	0.1	1	Hach 10242
Total Suspended Solids, TSS	12/20/2013 11:15 RAW	2.0	mg/L	1.0	1	USGS I 3765-85
Zinc, Total or Recoverable	12/30/2013 09:25 JCG	0.086	mg/L	0.005	1	SM 3111 B 1999
Acenaphthene	12/20/2013 08:00 TA	<10.0	ug/L	10.0	1	EPA 625
Acenaphthylene	12/20/2013 08:00 TA	<10.0	ug/L	10.0	1	EPA 625
Anthracene	12/20/2013 08:00 TA	<10.0	ug/L	10.0	1	EPA 625
Benzidine	12/20/2013 08:00 TA	<95.0	ug/L	95.0	1	EPA 625
Benzo(a)anthracene	12/20/2013 08:00 TA	<10.0	ug/L	10.0	1	EPA 625
Benzo(a)pyrene	12/20/2013 08:00 TA	<10.0	ug/L	10.0	1	EPA 625
3,4 Benzo-fluoranthene	12/20/2013 08:00 TA	<10.0	ug/L	10.0	1	EPA 625
Benzo(g,h,i)perylene	12/20/2013 08:00 TA	<10.0	ug/L	10.0	1	EPA 625
Benzo(k)fluoranthene	12/20/2013 08:00 TA	<10.0	ug/L	10.0	1	EPA 625
Butyl benzyl phthalate	12/20/2013 08:00 TA	<10.0	ug/L	10.0	1	EPA 625

bis(2-Chloroethoxy) methane	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
bis(2-Chloroethyl) ether	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
bis(2-Ethylhexyl) phthalate	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
4-Bromophenyl phenyl ether	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
P-Chloro-M-Cresol	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
2-Chloronaphthalene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
2-Chlorophenol	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
4-Chlorophenyl phenyl ether	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Chrysene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Dibenzo(a,h)anthracene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
3,3'-Dichlorobenzidine	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Diethyl phthalate	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
2,4-Dimethylphenol	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Dimethyl phthalate	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Di-n-butyl phthalate	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Di-n-octyl phthalate	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
2, 4-Dinitrophenol	12/20/2013	08:00	TA	<25.0	ug/L	25.0	1	EPA 625
2,4-Dinitrotoluene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
2,6-Dinitrotoluene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Fluoranthene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Fluorene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Hexachlorobenzene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Hexachlorobutadiene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Hexachlorocyclopentadiene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Hexachloroethane	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Indeno(1,2,3-c,d) pyrene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Isophorone	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Naphthalene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Nitrobenzene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
2-Nitrophenol	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
4-Nitrophenol	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
N-Nitrosodimethylamine	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
N-Nitrosodi-n-propylamine	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
N-Nitrosodiphenylamine	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
bis(2-Chloroisopropyl) ether	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Pentachlorophenol	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Phenanthrene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Phenol	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Pyrene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
1,2,4-Trichlorobenzene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
2,4,6-Trichlorophenol	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
1,2 Dichlorobenzene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
1,3 Dichlorobenzene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
1,4 Dichlorobenzene	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
2,4 Dichlorophenol	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
4,6 Dinitro-2-cresol	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
1,2-Diphenylhydrazine (as Azobenzene)	12/20/2013	08:00	TA	<10.0	ug/L	10.0	1	EPA 625
Acrolein	12/19/2013	14:41	TA	<50.0	ug/L	50.0	1	EPA 624
Acrylonitrile	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Benzene	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Bromoform	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Methyl Bromide	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Carbon tetrachloride	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Chlorobenzene	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624

Chloroethane	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
2-Chloroethylvinyl ether	12/19/2013	14:41	TA	<5.0	ug/L	5.0	1	EPA 624
Chloroform	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
1,1-Dichloroethane	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
1,2-Dichloroethane	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
1,1-Dichloroethene	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
trans-1,2-Dichloroethene	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
1,2-Dichloropropane	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Ethylbenzene	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Methylene chloride	12/19/2013	14:41	TA	<5.0	ug/L	5.0	1	EPA 624
1,1,2,2-Tetrachloroethane	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Tetrachloroethene	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Toluene	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
1,1,1-Trichloroethane	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
1,1,2-Trichloroethane	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Trichloroethene	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Vinyl chloride	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Chlorodibromo-methane	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Dichlorobromo-methane	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
1,3 Dichloro-propylene	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624
Methyl chloride	12/19/2013	14:41	TA	<1.0	ug/L	1.0	1	EPA 624

Note: Samples were analyzed in general accordance with the following Method References:
-Code of Federal Regulations, Title 40, Part 136
-Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846
-ASTM Annual Standards

Approved by: Lennette West, QC Manager **Date:** 1/21/2014

report sent via email

CHAIN OF CUSTODY FORM

Energy Technical Services, LLC
Northport Office - 14176 Highway 69 N, Northport, AL 35473 205 330-7994
Mobile Office - 1801 15th St., Suite D, Mobile, AL 36615 251 436-8880
www.energytechsvc.com Fax 866 594-8920

ETS ID # 131216R-001

Client: Baldwin County Sewer Services	**Sampled By:** ETS
Contact: Mr. Dave Flesch	**Turnaround:** Routine X **Rush By:**
Phone: 251 747-2977	***Compositor Start:** Date **Time**
Address: 12480 Highway 90	***Compositor End:** Date **Time**
City, State: Spanish Fort, AL	**Comments:**

Project: Spanish Fort 2A Permit Renewal

Sample ID	Sample Date	Sample Time (1241)	Sample Method: Comp*	Sample Method: Grab			Preservation*	C-BOD, TSS, NO2, TDS MDB	NH3, TKN, NO3, PO4 MDB	E. coli MDB	O&G MDB	TA Metals, & Hardness NPDT	CN MDB	Phenol TA	624 (& Trip Blk) TA	625 TA	Field - pH, DO, Cl2, Temp TA	*Preservation Types
							# of Containers	Ice	H2SO4	Na Thio	H2SO4	NHO3	NaOH	H2SO4	Ice	Ice		Ice
								P-1	P-1	P-2	G-1	P-1	P-1	G-1	G-3(1)	G-2		H2SO4
Effluent	12-16-13	1432	X					X	X			X				X		HNO3
Effluent	12-16-13	1432		X						X	X		X	X	X		X	HCl
																		NaOH
																		NaThio
																		Other
																		None
																		Container
																		Glass
																		Plastic

Relinquished by: Jerry Connell (Sign) Date/Time: 12-16-13 1610 Received by: (Sign) Date/Time: 12-16-13 1610

Relinquished by: (Sign) Date/Time: 12-18-13 1415 Received by: UPS (Sign) Date/Time:

Relinquished by: UPS (Sign) Date/Time: Received by: (Sign) Date/Time: 12/19/13 14:00

Was Shipped Container Intact when received? Yes No Seals Intact: Yes No Initials:

Were samples properly preserved? Yes No Sample Temp: 2 deg C Initials:

Shipper Tracking Number:

Comments: Cl2 .05, DO-9.21, 7.8°C Field pH: 6.41 s.u.

Flow:

COC Revised 06-13

EnviroChem, Inc.
Environmental Laboratories

4320 Midmost Drive Mobile, Alabama 36609
Phone (251) 344-9106 Fax (251) 341-9492

Report To: BCSS
P.O. Box 1628
Foley AL 36536
Attention: David Flesch

Project: Spanish Fort - Low Level Mercury
Project Number: 4/24/17

Report Date: 5/6/2017 12:21:50PM

ANALYTICAL REPORT

This report includes the results of analyses for sample(s) that were subcontracted to an approved laboratory. If you have any questions concerning this report, please feel free to call Mary Kathryn Brenner at (251) 344-9106.

Laboratory ID	SampleName	Date Sampled	Matrix
17D0424	Blank-Spanish Fort	4/24/2017 7:54:00AM	Wastewater
17D0424	Effluent-Spanish Fort	4/24/2017 8:05:00AM	Wastewater

Mary Kathryn Brenner, Project Manager

ACCREDITED IN ACCORDANCE WITH nelac

The test results in this report meet NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the sample(s) received by this laboratory. This report must be reproduced in its entirety unless approved by the laboratory.

Results are reported on a "wet weight basis", unless otherwise noted.

SERIAL NUMBER: 75745

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001
Fax: 850-478-2671
Website: www.testamericainc.com

QUOTE NO.	BOTTLE ORDER NO.	ORDER - LOG-IN NO.
		C

CLIENT	ADDRESS	PAGE	OF
Enviro Chem, Inc.	4320 Midmost Dr. Mobile, AL 36609		

PROJECT NAME	PROJECT NO	CLIENT PROJECT MANAGER	PROJECT LOC. (STATE)
17D0424-BSF	17D0424	Jenny White	AL

SAMPLED BY	CONTRACT / P.O. NO.

CLIENT PHONE	CLIENT E-MAIL OR FAX
251-344-9106	jwhite@ecilabs.com

TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL ¬ NORMAL 10 BUSINESS DAYS
¬ 1 DAY ¬ 2 DAYS ¬ 3 DAYS ¬ 5 DAYS ¬ 20 DAYS (Package) ¬ OTHER:
SAMPLE DISPOSAL: ¬ RETURN TO CLIENT ¬ DISPOSAL BY LAB
¬ SEE CONTRACT ¬ OTHER:

REQUESTED ANALYSIS

POSSIBLE HAZARD IDENTIFICATION
Δ NON-HAZARD
Δ FLAMMABLE
Δ RADIOACTIVE
Δ POISON B
Δ UNKNOWN
Δ OTHER:

NO. OF COOLERS PER SHIPMENT:

SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT

LAB USE ONLY - SAMPLE NUMBER

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	PRESERVATIVE: No Preservative	HCL - Hydrochloric Acid	HNO3 - Nitric Acid	H2SO4 - Sulfuric Acid or H3PO4	NAOH - Sodium Hydroxide	CH3OH - Methanol	NAHSO4 - Sodium Bisulfate	NA2S2O3 - Sodium Thiosulfate	Other	MATRIX: Drinking Water	Aqueous GW, SW, WW	Solid, Semisolid, Sediment	Air	NonAqueous (Oil, Solvent, etc.)	NUMBER OF CONTAINERS SUBMITTED
4-24-17	754	BLANK															3
4-24-17	805	SAMPLE															5

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	4-24-17	1620						
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
[signature]	4/24/17	1620						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	CUSTODY INTACT? Δ YES Δ NO	CUSTODY SEAL NO.	REMARKS:

TAL-8251 (1207)

ENVIROCHEM
Environmental Laboratories

Sample Receipt / Integrity Checklist

Client BCSS-Spanish Fork Date 4/24/17 Field Courier TS

Work Order 17D0424 Sample Custodian JCW

Sample coolers and containers

Custody seals on coolers or shipping containers intact?	Yes_____	No_____	n/a✓
Outside of coolers or shipping containers are free from damage?	Yes✓	No_____	n/a_____
All expected paperwork received (COC & other client specific information)?	Yes✓	No_____	n/a_____
Are sample containers intact?	Yes✓	No_____	n/a_____
Are samples in proper containers?	Yes✓	No_____	n/a_____
Is adequate sample volume present to perform the requested analyses?	Yes✓	No_____	n/a_____
Are volatile samples free of headspace (bubbles less than 6 mm in diameter)?	Yes_____	No_____	n/a✓

Thermal and Chemical Preservation

Samples received cooled?	Yes_____	No_____	n/a✓
Type of cooling/temp? Wet Ice_____ Blue Ice_____	n/a_____	Temp 0.3°C	
Temperature blank present?	Yes_____	No_____	n/a✓
If no cooling present, were samples received within 1 hour of collection?	Yes_____	No_____	n/a✓
Is the correct chemical preservative used for all samples?	Yes_____	No_____	n/a✓
Is the pH range correct for chemically preserved samples checked at login?	Yes_____	No_____	n/a✓
List samples checked for chemical preservation at bench O&G_____ Metals_____ VOCs_____		Other✓	

Chain of Custody

Is COC filled out completely?	Yes✓	No_____	n/a_____
Is COC properly relinquished (signed and dated)?	Yes✓	No_____	n/a_____
Are any samples missing on COC or from cooler?	Yes_____	No✓	n/a_____
Do sample containers match COC?	Yes✓	No_____	n/a_____

Holding Times

Are samples received within hold time?	Yes✓	No_____	n/a_____
Were short hold time or rush samples taken to appropriate department?	Yes_____	No_____	n/a✓
If no, was responsible analyst and/or dept. manager notified?	Yes_____	No_____	n/a✓

Does work order meet EnviroChem sample acceptance criteria? Yes✓ No_____ n/a_____

Note: Samples that do not meet acceptance criteria must be documented in the Sample Rejection Log

Field Comments _____

Login Comments IR-001

Temp adj for correction

Client Contacted_____ Contacted By_____ Date/Time_____

Client instructions ..... Cancel Work order_____ Proceed with work order X (Data will be qualified)

F0056.03

Energy Technical Services, LLC
Northport, Alabama 205.330.7994
Mobile, Alabama 251.436.8880
fuels - water - environmental

Analytical Report

Customer: Baldwin County Sewer Services
14747 Underwood Road
Summerdale, AL 36580

Date/Time collected: 5/19/14 6:35
Sampled by: Wright, Austin
Sample type: Grab/Composite
Customer ID: Spanish Ft Effluent

Project Name: EPA 2A Permit Renewal
ETS Sample ID: 140519P001
Location: Effluent

Analyte	Analysis Started Date/Time/Analyst	Result	Units	Det Lim	Dil. Factor	Method
Ammonia (NH3)	5/29/2014 13:00 raw	0.17	mg/L	0.05	1	EPA 350.1
Antimony, Total or Recoverable	5/27/2014 10:02 jcg	< 0.100	mg/L	0.100	1	SM 3111 B 1999
Arsenic, Total or Recoverable	5/23/2014 14:34 jcg	< 0.010	mg/L	0.010	1	EPA 200.9
Beryllium, Total or Recoverable	5/28/2014 12:20 jcg	< 0.010	mg/L	0.010	1	EPA 200.9
Cadmium, Total or Recoverable	5/23/2014 10:31 jcg	< 0.005	mg/L	0.005	1	EPA 200.9
Carbonaceous BOD, C-BOD	5/20/2014 15:45 raw	<2.0	mg/L	2.0	1	SM 5210 B 2001
Chromium, Total or Recoverable	5/21/2014 13:43 jcg	0.035	mg/L	0.010	1	EPA 200.9
Copper, Total or Recoverable	5/23/2014 15:01 jcg	< 0.005	mg/L	0.005	1	SM 3111 B 1999
Cyanide	5/27/2014 10:00 raw	< 0.01	mg/L	0.01	1	SM 4500 CN B&E
Dissolved Oxygen	5/19/2014 09:30 tlc	8.01	mg/L			SM 4500 O G 2001
E. coli	5/20/2014 16:00 raw	2	MPN/100ml	1	1	SM 9223 B 2004
Hardness as CaCO3	5/21/2014 13:41 jcg	10.50	mg/L	1.0		SM 3111 B 1999
Lead, Total or Recoverable	5/23/2014 11:18 jcg	<0.01	mg/L	0.01	1	EPA 200.9
Mercury	5/22/2014 14:42 kjd	< 0.001	mg/L	0.001	1	EPA 245.1
Nickel, Total or Recoverable	5/27/2014 09:36 jcg	<0.01	mg/L	0.01	1	SM 3111 B 1999
Nitrate	5/21/2014 10:50 raw	5.00	mg/L	0.10	1	EPA 353.2 1993
Nitrite	5/20/2014 12:00 pp	< 0.10	mg/L	0.10	1	USGS I 4540-85
Oil & Grease (O&G)	5/27/2014 09:35 pp	2.6	mg/L	1.0	1	EPA 1664B 2010
Phenols, Total	6/2/2014 14:55 ta	<0.05	mg/L	0.05	1	EPA 420.4
pH-Field	5/19/2014 09:30 tlc	6.29	S. U.			SM 4500-H+B 2000
Phosphorus, Total (PO4)	5/22/2014 08:45 pp	1.26	mg/L	0.1	2	EPA 365.3 1978
Total Residual Chlorine - Field	5/19/2014 09:05 tlc	< 0.01	mg/L			SM 4500 Cl G 2000
Selenium, Total or Recoverable	5/23/2014 15:54 kjd	<0.010	mg/L	0.010	1	EPA 200.9
Silver, Total or Recoverable	5/21/2014 14:33 jcg	<0.010	mg/L	0.010	1	SM 3111 B 1999
Temperature, C	5/19/2014 09:30 tlc	23.7	C			SM 2550 B 2000
Thallium, Total or Recoverable	5/27/2014 14:47 jcg	< 0.020	mg/L	0.020	1	EPA 200.9
Total Dissolved Solids (TDS)	5/22/2014 11:20 raw	108	mg/L	1	1	SM 2540 C 1997
Total Keldjahl Nitrogen (TKN)	5/22/2014 09:00 pp	0.71	mg/L	0.1	1	Hach 10242
Total Suspended Solids,TSS	5/21/2014 11:30 raw	4.0	mg/L	1.0	1	USGS I 3765-85
Zinc, Total or Recoverable	5/23/2014 09:52 jcg	0.074	mg/L	0.005	1	SM 3111 B 1999
Acenaphthene	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
Acenaphthylene	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
Anthracene	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
Benzidine	5/24/2014 15:34 ta	<95.0	ug/L	95.0	1	EPA 625
Benzo(a)anthracene	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
Benzo(a)pyrene	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
3,4 Benzo-fluoranthene	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
Benzo(g,h,i)perylene	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
Benzo(k)fluoranthene	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
Butyl benzyl phthalate	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
bis(2-Chloroethoxy) methane	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
bis(2-Chloroethyl) ether	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
bis(2-Ethylhexyl) phthalate	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625
4-Bromophenyl phenyl ether	5/24/2014 15:34 ta	<10.0	ug/L	10.0	1	EPA 625

P-Chloro-M-Cresol	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
2-Chloronaphthalene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
2-Chlorophenol	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
4-Chlorophenyl phenyl ether	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Chrysene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Dibenzo(a,h)anthracene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
3,3'-Dichlorobenzidine	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Diethyl phthalate	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
2,4-Dimethylphenol	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Dimethyl phthalate	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Di-n-butyl phthalate	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Di-n-octyl phthalate	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
2, 4-Dinitrophenol	5/24/2014	15:34	ta	<25.0	ug/L	25.0	1	EPA 625
2,4-Dinitrotoluene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
2,6-Dinitrotoluene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Fluoranthene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Fluorene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Hexachlorobenzene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Hexachlorobutadiene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Hexachlorocyclopentadiene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Hexachloroethane	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Indeno(1,2,3-c,d) pyrene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Isophorone	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Naphthalene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Nitrobenzene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
2-Nitrophenol	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
4-Nitrophenol	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
N-Nitrosodimethylamine	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
N-Nitrosodi-n-propylamine	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
N-Nitrosodiphenylamine	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
bis(2-Chloroisopropyl) ether	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Pentachlorophenol	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Phenanthrene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Phenol	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Pyrene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
1,2,4-Trichlorobenzene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
2,4,6-Trichlorophenol	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
1,2 Dichlorobenzene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
1,3 Dichlorobenzene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
1,4 Dichlorobenzene	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
2,4 Dichlorophenol	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
4,6 Dinitro-2-cresol	5/24/2014	15:34	ta	<25.0	ug/L	25.0	1	EPA 625
1,2-Diphenylhydrazine (as Azobenzene)	5/24/2014	15:34	ta	<10.0	ug/L	10.0	1	EPA 625
Acrolein	5/21/2014	17:03	ta	<50.0	ug/L	50.0	1	EPA 624
Acrylonitrile	5/21/2014	17:03	ta	<10.0	ug/L	10.0	1	EPA 624
Benzene	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Bromoform	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Methyl Bromide	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Carbon tetrachloride	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Chlorobenzene	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Chloroethane	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
2-Chloroethylvinyl ether	5/21/2014	17:03	ta	<5.0	ug/L	5.0	1	EPA 624
Chloroform	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
1,1-Dichloroethane	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
1,2-Dichloroethane	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
1,1-Dichloroethene	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
trans-1,2-Dichloroethene	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
1,2-Dichloropropane	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Ethylbenzene	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624

Methylene chloride	5/21/2014	17:03	ta	<5.0	ug/L	5.0	1	EPA 624
1,1,2,2-Tetrachloroethane	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Tetrachloroethene	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Toluene	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
1,1,1-Trichloroethane	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
1,1,2-Trichloroethane	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Trichloroethene	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Vinyl chloride	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Chlorodibromo-methane	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Dichlorobromo-methane	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
1,3 Dichloro-propylene	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624
Methyl chloride	5/21/2014	17:03	ta	<1.0	ug/L	1.0	1	EPA 624

Note: Samples were analyzed in general accordance with the following Method References:
-Code of Federal Regulations, Title 40, Part 136
-Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846
-ASTM Annual Standards

Approved by: Lennette West, QC Manager **Date:** 6/10/2014

report sent via email

EnviroChem, Inc.
Environmental Laboratories

4320 Midmost Drive Mobile, Alabama 36609
Phone (251) 344-9106 Fax (251) 341-9492

Report Date: 10/22/15 14:03

Report To: BCSS
P.O. Box 1628
Foley, AL 36536
Attention: David Flesch

Project: Spanish Fort - Permit Application
Project Number: [none]

ANALYTICAL REPORT

This report includes the results of analyses for the samples listed below that were received by the laboratory on 10/14/15 09:40. If you have any questions concerning this report, please feel free to call Mary Kathryn Brenner at (251) 344-9106.

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Spanish Fort - Composite	15J0248-01	Wastewater	10/14/15 05:35	10/14/15 09:40
Spanish Fort - Grab	15J0248-02	Wastewater	10/14/15 08:25	10/14/15 09:40

Mary Kathryn Brenner, Project Manager

ACCREDITED IN ACCORDANCE WITH nelac

The test results in this report meet NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the sample(s) received by this laboratory. This report must be reproduced in its entirety unless approved by the laboratory.

Results are reported on a "wet weight basis", unless otherwise noted.

EnviroChem, Inc.
Environmental Laboratories

4320 Midmost Drive Mobile, Alabama 36609
Phone (251) 344-9106 Fax (251) 341-9492

Report Date: 10/22/15 14:03

Sample Name: Spanish Fort - Composite

Sample Type: Composite

Sample Date: 10/14/15 05:35 Date Received: 10/14/15 09:40 Sampled by: Ken Mohr Matrix: Wastewater

Analyte	Result	Units	Reporting Limit	Analyst	Prepared	Analyzed	Method	Batch	Lab Number	Qualifier
Metals by EPA 200 Series Methods										
Antimony	< 0.006	mg/L	0.006	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	*, U
Arsenic	< 0.010	mg/L	0.010	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Beryllium	< 0.002	mg/L	0.002	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Cadmium	< 0.005	mg/L	0.005	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Calcium	**13.2**	mg/L	0.500	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	
Chromium	< 0.05	mg/L	0.05	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Copper	< 0.01	mg/L	0.01	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Lead	< 0.005	mg/L	0.005	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Magnesium	**3.07**	mg/L	0.20	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	
Mercury	< 0.0005	mg/L	0.0005	ENC	10/19/15 14:24	10/20/15 11:45	EPA 245.1	5J19017	15J0248-01	U
Nickel	< 0.05	mg/L	0.05	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Selenium	< 0.02	mg/L	0.02	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Silver	< 0.01	mg/L	0.01	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Thallium	< 0.002	mg/L	0.002	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Zinc	< 0.10	mg/L	0.10	ENC	10/19/15 14:21	10/19/15 18:53	EPA 200.8	5J19016	15J0248-01	U
Classical Chemistry Parameters										
Ammonia as N	**1.10**	mg/L	0.10	JLM	10/15/15 10:00	10/15/15 10:26	EPA 350.1	5J15006	15J0248-01	
Biochemical Oxygen Demand	**4**	mg/L	3	TGH	10/14/15 13:05	10/19/15 10:05	SM 5210B	5J14001	15J0248-01	
Carbonaceous Biochemical Oxygen Demand	< 3	mg/L	3	TGH	10/14/15 13:15	10/19/15 11:10	SM 5210B	5J14002	15J0248-01	J, U
Cyanide (Total)	< 0.02	mg/L	0.02	SAB	10/15/15 09:30	10/15/15 11:50	10-204-00-1-X	5J15010	15J0248-01	U
Nitrate/Nitrite as N	**6.4**	mg/L	0.5	JLM	10/15/15 11:30	10/15/15 15:47	EPA 353.2	5J15011	15J0248-01	
Phenol	< 0.05	mg/L	0.05	SAB	10/19/15 08:45	10/19/15 12:07	EPA 420.4	5J19005	15J0248-01	U
Phosphorus	**3.08**	mg/L	0.200	JLM	10/16/15 10:30	10/20/15 15:14	EPA 365.4	5J20004	15J0248-01RE1	
Total Dissolved Solids	**297**	mg/L	5	NG	10/16/15 09:28	10/19/15 13:25	SM 2540C	5J16008	15J0248-01	
Total Hardness	**45.6**	mg/L	0.5	SAB	10/20/15 08:54	10/20/15 08:54	SM 2340 B	5J20001	15J0248-01	
Total Kjeldahl Nitrogen	**3.7**	mg/L	0.5	JLM	10/16/15 10:30	10/20/15 14:04	EPA 351.2	5J20002	15J0248-01	
Total Suspended Solids	**5**	mg/L	5	NG	10/14/15 15:14	10/15/15 12:07	SM 2540D	5J14023	15J0248-01	

EnviroChem, Inc.
Environmental Laboratories

4320 Midmost Drive Mobile, Alabama 36609
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Report Date: 10/22/15 14:03

Sample Name: Spanish Fort - Grab | Sample Type: Grab

Sample Date: 10/14/15 08:25 | Date Received: 10/14/15 09:40 | Sampled by: Ken Mohr | Matrix: Wastewater

Analyte	Result	Units	Reporting Limit	Analyst	Prepared	Analyzed	Method	Batch	Lab Number	Qualifier
Classical Chemistry Parameters										
Fecal Coliforms	< 20	CFU/100 ml	20	TGH	10/14/15 12:10	10/15/15 12:15	SM 9222D	5J14012	15J0248-02	
Oil & Grease	< 2	mg/L	2	TGH	10/16/15 08:45	10/19/15 15:59	EPA 1664	5J16003	15J0248-02	U
Purgeables by EPA Method 624										
1,1,1-Trichloroethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
1,1,2,2-Tetrachloroethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
1,1,2-Trichloroethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
1,1-Dichloroethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
1,1-Dichloroethene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
1,2-Dichlorobenzene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
1,2-Dichloroethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
1,2-Dichloropropane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
1,3-Dichlorobenzene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
1,4-Dichlorobenzene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
2-Chloroethyl vinyl ether	< 10	ug/L	10	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Benzene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Bromodichloromethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Bromoform	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Bromomethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Carbon Tetrachloride	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Chlorobenzene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Chlorodibromomethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Chloroethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Chloroform	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Chloromethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
cis-1,3-Dichloropropene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Ethylbenzene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Methylene Chloride	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Tetrachloroethene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Toluene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
trans-1,2-Dichloroethene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
trans-1,3-Dichloropropene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Trichloroethene	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Trichlorofluoromethane	< 5	ug/L	5	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Vinyl chloride	< 2	ug/L	2	GEM	10/14/15 12:30	10/14/15 13:36	EPA 624	5J14019	15J0248-02	U
Surrogate: 4-Bromofluorobenzene	*91 %*		*70-130*		*10/14/15 12:30*	*10/14/15 13:36*	*EPA 624*	*5J14019*		
Surrogate: Dibromofluoromethane	*90 %*		*70-130*		*10/14/15 12:30*	*10/14/15 13:36*	*EPA 624*	*5J14019*		
Surrogate: Toluene-d8	*95 %*		*70-130*		*10/14/15 12:30*	*10/14/15 13:36*	*EPA 624*	*5J14019*		

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Results are reported on a "wet weight basis", unless otherwise noted.

EnviroChem, Inc.
Environmental Laboratories

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Phone (251) 344-9106 Fax (251) 341-9492

Report Date: 10/22/15 14:03

Sample Name: Spanish Fort - Composite

Sample Type: Composite

Sample Date: 10/14/15 05:35 Date Received: 10/14/15 09:40 Sampled by: Ken Mohr Matrix: Wastewater

Analyte	Result	Units	Reporting Limit	Analyst	Prepared	Analyzed	Method	Batch	Lab Number	Qualifier
Acid and Base/Neutral Extractables by EPA Method 625										
1,2,4-Trichlorobenzene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
1,2-Dichlorobenzene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
1,3-Dichlorobenzene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
1,4-Dichlorobenzene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
2,4,6-Trichlorophenol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
2,4-Dichlorophenol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
2,4-Dimethylphenol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
2,4-Dinitrophenol	< 10	ug/L	10	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
2,4-Dinitrotoluene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
2,6-Dinitrotoluene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
2-Chloronaphthalene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
2-Chlorophenol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
2-Methylphenol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
2-Nitrophenol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
3 & 4-Methylphenol	< 10	ug/L	10	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
3,3´-Dichlorobenzidine	< 10	ug/L	10	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
4,6-Dinitro-o-cresol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
4-Bromophenyl phenyl ether	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
4-Chlorophenyl phenyl ether	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
4-Nitrophenol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Acenaphthene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Acenaphthylene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Anthracene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Azobenzene (1,2-diphenylhydrazine)	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Benzo(a)anthracene	< 1	ug/L	1	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Benzo(a)pyrene	< 0.2	ug/L	0.2	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Benzo(b)fluoranthene	< 1	ug/L	1	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Benzo(ghi)perylene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Benzo(k)fluoranthene	< 0.5	ug/L	0.5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Benzoic acid	< 10	ug/L	10	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Benzyl alcohol	< 10	ug/L	10	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Benzyl butyl phthalate	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Bis(2-chloroethoxy)methane	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Bis(2-chloroethyl)ether	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Bis(2-chloroisopropyl) ether	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Bis(2-ethylhexyl) phthalate	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Chrysene	< 1	ug/L	1	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Dibenzo(a,h)anthracene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Diethyl phthalate	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U

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Report Date: 10/22/15 14:03

Sample Name: Spanish Fort - Composite

Sample Type: Composite

Sample Date: 10/14/15 05:35 Date Received: 10/14/15 09:40 Sampled by: Ken Mohr Matrix: Wastewater

Analyte	Result	Units	Reporting Limit	Analyst	Prepared	Analyzed	Method	Batch	Lab Number	Qualifier
Acid and Base/Neutral Extractables by EPA Method 625										
Dimethyl phthalate	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Di-n-butyl phthalate	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Di-n-octyl phthalate	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Fluoranthene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Fluorene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Hexachlorobenzene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Hexachlorobutadiene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Hexachlorocyclopentadiene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Hexachloroethane	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Indeno (1,2,3-cd) pyrene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Isophorone	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Naphthalene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
n-Decane	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Nitrobenzene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
N-Nitrosodi-n-propylamine	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
n-Octadecane	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
p-Chloro-m-cresol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Pentachlorophenol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Phenanthrene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Phenol	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Pyrene	< 5	ug/L	5	JAB	10/15/15 08:00	10/15/15 17:49	EPA 625	5J15020	15J0248-01	U
Surrogate: 2,4,6-Tribromophenol	*60 %*		*21-121*		*10/15/15 08:00*	*10/15/15 17:49*	*EPA 625*	*5J15020*		
Surrogate: 2-Fluorobiphenyl	*58 %*		*12-120*		*10/15/15 08:00*	*10/15/15 17:49*	*EPA 625*	*5J15020*		
Surrogate: 2-Fluorophenol	*42 %*		*10-120*		*10/15/15 08:00*	*10/15/15 17:49*	*EPA 625*	*5J15020*		
Surrogate: Nitrobenzene-d5	*75 %*		*12-128*		*10/15/15 08:00*	*10/15/15 17:49*	*EPA 625*	*5J15020*		
Surrogate: Phenol-d5	*26 %*		*10-120*		*10/15/15 08:00*	*10/15/15 17:49*	*EPA 625*	*5J15020*		
Surrogate: p-Terphenyl-d14	*40 %*		*11-158*		*10/15/15 08:00*	*10/15/15 17:49*	*EPA 625*	*5J15020*		

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Environmental Laboratories

4320 Midmost Drive Mobile, Alabama 36609
Phone (251) 344-9106 Fax (251) 341-9492

Report Date: 10/22/15 14:03

CASE NARRATIVE

The results presented in this report relate only to the sample(s) received on 10/14/15 09:40 for BCSS -

Laboratory ID	Sample Name
15J0248-01	Spanish Fort - Composite
15J0248-02	Spanish Fort - Grab

. If you have any questions concerning this report, please contact Mary Kathryn Brenner at (251) 344-9106.

Sample Receipt

Sample receipt information, including documentation of any deviation(s) from sample receiving quality control acceptance criteria, is provided on attachments to the report including the Sample Receipt Checklist, Chain of Custody, and/or Field Data Sheet.

Comments

No additional comments.

Explanation of qualified data in this report:

U	The compound was analyzed for but not detected.
U	The compound was analyzed for but not detected.
SPK L	The % Recovery for this spiked analyte was below the established control limit.
SPK H	The % Recovery for this spiked analyte was above the established control limit.
RPD	The RPD for this duplicate exceeded the established control limit.
J	The reported value is above the MDL but below the RL. Value should be considered an estimate.
*	Associated QC parameter exceeded control limit. Refer to the Quality Control Section of this report.

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Report Date: 10/22/15 14:03

Metals by EPA 200 Series Methods - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J19016 - EPA 200.8										
Blank (5J19016-BLK1)			Prepared & Analyzed: 10/19/15							
Silver	0.01	mg/L	ND							U
Arsenic	0.010	"	ND							U
Beryllium	0.001	"	ND							U
Calcium	0.500	"	ND							U
Cadmium	0.005	"	ND							U
Chromium	0.05	"	ND							U
Copper	0.01	"	ND							U
Magnesium	0.10	"	ND							U
Nickel	0.05	"	ND							U
Lead	0.005	"	ND							U
Antimony	0.006	"	ND							U
Selenium	0.02	"	ND							U
Thallium	0.002	"	ND							U
Zinc	0.10	"	ND							U
LCS (5J19016-BS1)			Prepared & Analyzed: 10/19/15							
Silver	0.01	mg/L	0.10	0.100		97	85-115			
Arsenic	0.010	"	0.106	0.100		106	85-115			
Beryllium	0.001	"	0.107	0.100		107	85-115			
Calcium	0.500	"	5.17	5.00		103	85-115			
Cadmium	0.005	"	0.104	0.100		104	85-115			
Chromium	0.05	"	0.10	0.100		104	85-115			
Copper	0.01	"	0.10	0.100		104	85-115			
Magnesium	0.10	"	5.36	5.00		107	85-115			
Nickel	0.05	"	0.11	0.100		106	85-115			
Lead	0.005	"	0.106	0.100		106	85-115			
Antimony	0.006	"	0.126	0.100		126	85-115			SPK H
Selenium	0.02	"	0.11	0.100		105	85-115			
Thallium	0.002	"	0.11	0.100		105	85-115			
Zinc	0.10	"	0.11	0.100		107	85-115			

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Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J19016 - EPA 200.8										
LCS Dup (5J19016-BSD1)			Prepared & Analyzed: 10/19/15							
Silver	0.01	mg/L	0.10	0.100		98	85-115	1	25	
Arsenic	0.010	"	0.109	0.100		109	85-115	3	25	
Beryllium	0.001	"	0.108	0.100		108	85-115	0.6	25	
Calcium	0.500	"	5.17	5.00		103	85-115	0.02	25	
Cadmium	0.005	"	0.104	0.100		104	85-115	1	25	
Chromium	0.05	"	0.11	0.100		109	85-115	4	25	
Copper	0.01	"	0.11	0.100		109	85-115	5	25	
Magnesium	0.10	"	5.55	5.00		111	85-115	4	25	
Nickel	0.05	"	0.11	0.100		111	85-115	5	25	
Lead	0.005	"	0.106	0.100		106	85-115	0.2	25	
Antimony	0.006	"	0.126	0.100		126	85-115	0.7	25	SPK H
Selenium	0.02	"	0.10	0.100		103	85-115	2	25	
Thallium	0.002	"	0.11	0.100		106	85-115	0.3	25	
Zinc	0.10	"	0.11	0.100		112	85-115	4	25	
Duplicate (5J19016-DUP1)		**Source: 15J0232-01**	Prepared & Analyzed: 10/19/15							
Silver	0.01	mg/L	ND		ND				25	U
Arsenic	0.010	"	0.017		0.017			0	25	
Beryllium	0.002	"	ND		ND				25	U
Calcium	0.500	"	17.4		17.4			0.1	25	
Cadmium	0.005	"	ND		0.0003				25	U
Chromium	0.05	"	0.005		0.005			5	25	U
Copper	0.01	"	0.0007		0.0008			8	25	U
Magnesium	0.20	"	21.5		21.5			0.09	25	
Nickel	0.05	"	0.04		0.04			0.6	25	U
Lead	0.005	"	ND		0.0005				25	U
Antimony	0.006	"	ND		0.002				25	U
Selenium	0.02	"	0.001		0.001			3	25	U
Thallium	0.002	"	ND		0.0003				25	U
Zinc	0.10	"	0.005		0.005			3	25	U

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Metals by EPA 200 Series Methods - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J19016 - EPA 200.8										
Matrix Spike (5J19016-MS1)		**Source: 15J0232-01**		Prepared & Analyzed: 10/19/15						
Silver	0.01	mg/L	0.18	0.200	ND	88	70-130			
Arsenic	0.010	"	0.284	0.200	0.017	133	70-130			SPK H
Beryllium	0.002	"	0.212	0.200	ND	106	70-130			
Calcium	0.500	"	27.7	10.0	17.4	103	70-130			
Cadmium	0.005	"	0.192	0.200	0.0003	96	70-130			
Chromium	0.05	"	0.21	0.200	0.005	100	70-130			
Copper	0.01	"	0.19	0.200	0.0008	92	70-130			
Magnesium	0.20	"	31.7	10.0	21.5	102	70-130			
Nickel	0.05	"	0.23	0.200	0.04	94	70-130			
Lead	0.005	"	0.198	0.200	0.0005	99	70-130			
Antimony	0.006	"	0.257	0.200	0.002	127	70-130			
Selenium	0.02	"	0.23	0.200	0.001	116	70-130			
Thallium	0.002	"	0.20	0.200	0.0003	98	70-130			
Zinc	0.10	"	0.18	0.200	0.005	89	70-130			
Matrix Spike Dup (5J19016-MSD1)		**Source: 15J0232-01**		Prepared & Analyzed: 10/19/15						
Silver	0.01	mg/L	0.17	0.200	ND	87	70-130	0.4	25	
Arsenic	0.010	"	0.272	0.200	0.017	127	70-130	4	25	
Beryllium	0.002	"	0.212	0.200	ND	106	70-130	0.09	25	
Calcium	0.500	"	27.5	10.0	17.4	101	70-130	0.8	25	
Cadmium	0.005	"	0.189	0.200	0.0003	94	70-130	1	25	
Chromium	0.05	"	0.20	0.200	0.005	100	70-130	0.7	25	
Copper	0.01	"	0.18	0.200	0.0008	91	70-130	1	25	
Magnesium	0.20	"	31.2	10.0	21.5	97	70-130	1	25	
Nickel	0.05	"	0.22	0.200	0.04	92	70-130	2	25	
Lead	0.005	"	0.197	0.200	0.0005	98	70-130	0.5	25	
Antimony	0.006	"	0.254	0.200	0.002	126	70-130	0.9	25	
Selenium	0.02	"	0.23	0.200	0.001	113	70-130	3	25	
Thallium	0.002	"	0.20	0.200	0.0003	98	70-130	0.5	25	
Zinc	0.10	"	0.18	0.200	0.005	87	70-130	2	25	

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Metals by EPA 200 Series Methods - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J19017 - EPA 245.1										
Blank (5J19017-BLK1)				Prepared: 10/19/15 Analyzed: 10/20/15						
Mercury	0.0005	mg/L	ND							U
LCS (5J19017-BS1)				Prepared: 10/19/15 Analyzed: 10/20/15						
Mercury	0.0005	mg/L	0.007	0.00750		98	85-115			
LCS Dup (5J19017-BSD1)				Prepared: 10/19/15 Analyzed: 10/20/15						
Mercury	0.0005	mg/L	0.008	0.00750		106	85-115	8	25	
Duplicate (5J19017-DUP1)			**Source: 15J0196-03**	Prepared: 10/19/15 Analyzed: 10/20/15						
Mercury	0.0005	mg/L	ND		ND				25	U
Matrix Spike (5J19017-MS1)			**Source: 15J0196-03**	Prepared: 10/19/15 Analyzed: 10/20/15						
Mercury	0.0005	mg/L	0.008	0.00750	ND	112	70-130			
Matrix Spike Dup (5J19017-MSD1)			**Source: 15J0196-03**	Prepared: 10/19/15 Analyzed: 10/20/15						
Mercury	0.0005	mg/L	0.008	0.00750	ND	111	70-130	0.5	25	

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Classical Chemistry Parameters - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J15010 - 10-204-00-1-X										
Blank (5J15010-BLK1)				Prepared & Analyzed: 10/15/15						
Cyanide (Total)	0.02	mg/L	ND							U
LCS (5J15010-BS1)				Prepared & Analyzed: 10/15/15						
Cyanide (Total)	0.02	mg/L	0.225	0.200		112	81.4-123			
LCS Dup (5J15010-BSD1)				Prepared & Analyzed: 10/15/15						
Cyanide (Total)	0.02	mg/L	0.225	0.200		112	81.4-123	0	25	
Matrix Spike (5J15010-MS1)		**Source: 15J0196-03**		Prepared & Analyzed: 10/15/15						
Cyanide (Total)	0.02	mg/L	0.221	0.200	ND	110	70-130			
Matrix Spike Dup (5J15010-MSD1)		**Source: 15J0196-03**		Prepared & Analyzed: 10/15/15						
Cyanide (Total)	0.02	mg/L	0.214	0.200	ND	107	70-130	3	25	
Batch 5J16003 - EPA 1664										
Blank (5J16003-BLK1)				Prepared: 10/16/15 Analyzed: 10/19/15						
Oil & Grease	2	mg/L	ND							U
LCS (5J16003-BS1)				Prepared: 10/16/15 Analyzed: 10/19/15						
Oil & Grease	2	mg/L	39.6	40.0		99	78-114			
LCS Dup (5J16003-BSD1)				Prepared: 10/16/15 Analyzed: 10/19/15						
Oil & Grease	2	mg/L	37.7	40.0		94	78-114	5	18	
Matrix Spike (5J16003-MS1)		**Source: 15J0295-01**		Prepared: 10/16/15 Analyzed: 10/19/15						
Oil & Grease	2	mg/L	36.2	40.8	25.6	26	78-114			SPK L

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Classical Chemistry Parameters - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J15006 - EPA 350.1										
Blank (5J15006-BLK1)				Prepared & Analyzed: 10/15/15						
Ammonia as N	0.10	mg/L	ND							U
LCS (5J15006-BS1)				Prepared & Analyzed: 10/15/15						
Ammonia as N	0.10	mg/L	9.91	10.0		99	90-110			
Matrix Spike (5J15006-MS1)			Source: 15J0228-02	Prepared & Analyzed: 10/15/15						
Ammonia as N	0.10	mg/L	10.1	10.0	0.0615	100	90-110			
Matrix Spike Dup (5J15006-MSD1)			Source: 15J0228-02	Prepared & Analyzed: 10/15/15						
Ammonia as N	0.10	mg/L	10.1	10.0	0.0615	100	90-110	0	30	
Batch 5J20002 - EPA 351.2										
Blank (5J20002-BLK1)				Prepared: 10/16/15 Analyzed: 10/20/15						
Total Kjeldahl Nitrogen	0.5	mg/L	ND							U
LCS (5J20002-BS1)				Prepared: 10/16/15 Analyzed: 10/20/15						
Total Kjeldahl Nitrogen	0.5	mg/L	9.29	10.0		93	90-110			
Matrix Spike (5J20002-MS1)			Source: 15J0274-03	Prepared: 10/16/15 Analyzed: 10/20/15						
Total Kjeldahl Nitrogen	0.5	mg/L	9.21	10.0	0.54	87	80-120			
Matrix Spike Dup (5J20002-MSD1)			Source: 15J0274-03	Prepared: 10/16/15 Analyzed: 10/20/15						
Total Kjeldahl Nitrogen	0.5	mg/L	9.39	10.0	0.54	89	80-120	2	20	
Batch 5J15011 - EPA 353.2										
Blank (5J15011-BLK1)				Prepared & Analyzed: 10/15/15						
Nitrate/Nitrite as N	0.1	mg/L	ND							U

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Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J15011 - EPA 353.2										
LCS (5J15011-BS1)				Prepared: 10/15/15 Analyzed: 10/16/15						
Nitrate/Nitrite as N	0.1	mg/L	1.0	1.00		102	90-110			
Matrix Spike (5J15011-MS1)		Source: 15J0242-01		Prepared & Analyzed: 10/15/15						
Nitrate/Nitrite as N	1.0	mg/L	9.7	10.0	0.02	97	90-110			
Matrix Spike Dup (5J15011-MSD1)		Source: 15J0242-01		Prepared & Analyzed: 10/15/15						
Nitrate/Nitrite as N	1.0	mg/L	9.7	10.0	0.02	97	90-110	0.3	20	
Batch 5J20004 - EPA 365.4										
Blank (5J20004-BLK1)				Prepared: 10/16/15 Analyzed: 10/20/15						
Phosphorus	0.100	mg/L	ND							U
LCS (5J20004-BS1)				Prepared: 10/16/15 Analyzed: 10/20/15						
Phosphorus	0.100	mg/L	1.04	1.00		104	85-115			
Matrix Spike (5J20004-MS1)		Source: 15J0274-03		Prepared: 10/16/15 Analyzed: 10/20/15						
Phosphorus	0.100	mg/L	1.30	1.00	0.287	101	75-125			
Matrix Spike (5J20004-MS2)		Source: 15J0307-02		Prepared: 10/16/15 Analyzed: 10/20/15						
Phosphorus	1.00	mg/L	14.8	10.0	4.65	102	75-125			
Matrix Spike Dup (5J20004-MSD1)		Source: 15J0274-03		Prepared: 10/16/15 Analyzed: 10/20/15						
Phosphorus	0.100	mg/L	1.31	1.00	0.287	102	75-125	0.8	25	
Matrix Spike Dup (5J20004-MSD2)		Source: 15J0307-02		Prepared: 10/16/15 Analyzed: 10/20/15						
Phosphorus	1.00	mg/L	14.9	10.0	4.65	102	75-125	0.7	25	

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Classical Chemistry Parameters - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J19005 - EPA 420.4										
Blank (5J19005-BLK1)				Prepared & Analyzed: 10/19/15						
Phenol	0.05	mg/L	ND							U
LCS (5J19005-BS1)				Prepared & Analyzed: 10/19/15						
Phenol	0.05	mg/L	0.167	0.150		111	85-115			
LCS Dup (5J19005-BSD1)				Prepared & Analyzed: 10/19/15						
Phenol	0.05	mg/L	0.159	0.150		106	85-115	5	10	
Matrix Spike (5J19005-MS1)		**Source: 15J0248-01**		Prepared & Analyzed: 10/19/15						
Phenol	0.05	mg/L	0.176	0.150	0.018	105	85-115			
Matrix Spike Dup (5J19005-MSD1)		**Source: 15J0248-01**		Prepared & Analyzed: 10/19/15						
Phenol	0.05	mg/L	0.173	0.150	0.018	103	85-115	2	30	
Batch 5J20001 - SM 2340 B										
Blank (5J20001-BLK1)				Prepared & Analyzed: 10/20/15						
Total Hardness	0.5	mg/L	ND							U
Batch 5J16008 - SM 2540C										
Blank (5J16008-BLK1)				Prepared: 10/16/15 Analyzed: 10/19/15						
Total Dissolved Solids	5	mg/L	ND							U
LCS (5J16008-BS1)				Prepared: 10/16/15 Analyzed: 10/19/15						
Total Dissolved Solids		mg/L	153	153		100	85-115			

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Classical Chemistry Parameters - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J16008 - SM 2540C										
Duplicate (5J16008-DUP1)		**Source: 15J0219-01**		Prepared: 10/16/15 Analyzed: 10/19/15						
Total Dissolved Solids	5	mg/L	390		388			0.5	5	
Batch 5J14023 - SM 2540D										
Blank (5J14023-BLK1)				Prepared: 10/14/15 Analyzed: 10/15/15						
Total Suspended Solids	5	mg/L	ND							U
LCS (5J14023-BS1)				Prepared: 10/14/15 Analyzed: 10/15/15						
Total Suspended Solids		mg/L	58	55.8		104	85-115			
Duplicate (5J14023-DUP1)		**Source: 15J0251-01**		Prepared: 10/14/15 Analyzed: 10/15/15						
Total Suspended Solids	5	mg/L	210		192			8	5	RPD
Batch 5J14001 - SM 5210B										
Blank (5J14001-BLK1)				Prepared: 10/14/15 Analyzed: 10/19/15						
Biochemical Oxygen Demand	2	mg/L	ND							U
LCS (5J14001-BS1)				Prepared: 10/14/15 Analyzed: 10/19/15						
Biochemical Oxygen Demand		mg/L	200	198		101	84.6-115.4			
Duplicate (5J14001-DUP1)		**Source: 15J0223-02**		Prepared: 10/14/15 Analyzed: 10/19/15						
Biochemical Oxygen Demand	200	mg/L	20200		20500			1	35	
Batch 5J14002 - SM 5210B										
Blank (5J14002-BLK1)				Prepared: 10/14/15 Analyzed: 10/19/15						
Carbonaceous Biochemical Oxygen Demand	2	mg/L	ND							U

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Classical Chemistry Parameters - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J14002 - SM 5210B										
LCS (5J14002-BS1)				Prepared: 10/14/15 Analyzed: 10/19/15						
Carbonaceous Biochemical Oxygen Demand		mg/L	194	198		98	84.6-115.4			
Duplicate (5J14002-DUP1)		**Source: 15J0230-01**		Prepared: 10/14/15 Analyzed: 10/19/15						
Carbonaceous Biochemical Oxygen Demand	2	mg/L	140		138			1	35	
Batch 5J14012 - SM 9222D										
Blank (5J14012-BLK1)				Prepared: 10/14/15 Analyzed: 10/15/15						
Fecal Coliforms	4	CFU/100 ml	ND							
Blank (5J14012-BLK2)				Prepared: 10/14/15 Analyzed: 10/15/15						
Fecal Coliforms	4	CFU/100 ml	ND							

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Acid and Base/Neutral Extractables by EPA Method 625 - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J15020 - EPA 625										
Blank (5J15020-BLK1)			Prepared & Analyzed: 10/15/15							
Phenol	5	ug/L	ND							U
Bis(2-chloroethyl)ether	5	"	ND							U
n-Decane	5	"	ND							U
2-Chlorophenol	5	"	ND							U
1,3-Dichlorobenzene	5	"	ND							U
1,4-Dichlorobenzene	5	"	ND							U
Benzyl alcohol	10	"	ND							U
1,2-Dichlorobenzene	5	"	ND							U
Bis(2-chloroisopropyl) ether	5	"	ND							U
2-Methylphenol	5	"	ND							U
N-Nitrosodi-n-propylamine	5	"	ND							U
3 & 4-Methylphenol	10	"	ND							U
Hexachloroethane	5	"	ND							U
Nitrobenzene	5	"	ND							U
Isophorone	5	"	ND							U
2-Nitrophenol	5	"	ND							U
2,4-Dimethylphenol	5	"	ND							U
Bis(2-chloroethoxy)methane	5	"	ND							U
Benzoic acid	10	"	ND							U
1,2,4-Trichlorobenzene	5	"	ND							U
2,4-Dichlorophenol	5	"	ND							U
Naphthalene	5	"	ND							U
Hexachlorobutadiene	5	"	ND							U
p-Chloro-m-cresol	5	"	ND							U
2,4,6-Trichlorophenol	5	"	ND							U
2-Chloronaphthalene	5	"	ND							U
Dimethyl phthalate	5	"	ND							U
2,6-Dinitrotoluene	5	"	ND							U
Acenaphthylene	5	"	ND							U
Acenaphthene	5	"	ND							U
2,4-Dinitrophenol	10	"	ND							U
2,4-Dinitrotoluene	5	"	ND							U
4-Nitrophenol	5	"	ND							U
Diethyl phthalate	5	"	ND							U
4-Chlorophenyl phenyl ether	5	"	ND							U
Fluorene	5	"	ND							U
4,6-Dinitro-o-cresol	5	"	ND							U
Azobenzene (1,2-diphenylhydrazine)	5	"	ND							U
4-Bromophenyl phenyl ether	5	"	ND							U
Hexachlorobenzene	5	"	ND							U
Pentachlorophenol	5	"	ND							U

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EnviroChem, Inc.
Environmental Laboratories

4320 Midmost Drive Mobile, Alabama 36609
Phone (251) 344-9106 Fax (251) 341-9492

Report Date: 10/22/15 14:03

Acid and Base/Neutral Extractables by EPA Method 625 - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J15020 - EPA 625										
Blank (5J15020-BLK1)			Prepared & Analyzed: 10/15/15							
n-Octadecane	5	ug/L	ND							U
Hexachlorocyclopentadiene	5	"	ND							U
Phenanthrene	5	"	ND							U
Anthracene	5	"	ND							U
Di-n-butyl phthalate	5	"	ND							U
Fluoranthene	5	"	ND							U
Pyrene	5	"	ND							U
Benzyl butyl phthalate	5	"	ND							U
Bis(2-ethylhexyl) phthalate	5	"	ND							U
Benzo(a)anthracene	1	"	ND							U
3,3´-Dichlorobenzidine	10	"	ND							U
Chrysene	1	"	ND							U
Di-n-octyl phthalate	5	"	ND							U
Benzo(b)fluoranthene	1	"	ND							U
Benzo(k)fluoranthene	0.5	"	ND							U
Benzo(a)pyrene	0.2	"	ND							U
Indeno (1,2,3-cd) pyrene	5	"	ND							U
Dibenzo(a,h)anthracene	5	"	ND							U
Benzo(ghi)perylene	5	"	ND							U
Surrogate: 2-Fluorophenol		"		*48.4*	*100*	*48*	*10-120*			
Surrogate: Phenol-d5		"		*31.0*	*100*	*31*	*10-120*			
Surrogate: Nitrobenzene-d5		"		*37.6*	*50.5*	*75*	*12-128*			
Surrogate: 2-Fluorobiphenyl		"		*27.8*	*50.0*	*56*	*12-120*			
Surrogate: 2,4,6-Tribromophenol		"		*50.8*	*100*	*51*	*21-121*			
Surrogate: p-Terphenyl-d14		"		*18.8*	*50.5*	*37*	*11-158*			
LCS (5J15020-BS1)			Prepared & Analyzed: 10/15/15							
Phenol	5	ug/L	19	50.0		38	5-112			
Bis(2-chloroethyl)ether	5	"	41	49.8		82	12-158			
n-Decane	5	"	39	50.0		78	10-120			
2-Chlorophenol	5	"	38	50.0		75	23-134			
1,3-Dichlorobenzene	5	"	38	49.5		77	1-172			
1,4-Dichlorobenzene	5	"	39	50.0		78	20-124			
Benzyl alcohol	10	"	36	50.0		72	30-120			
1,2-Dichlorobenzene	5	"	39	49.5		80	32-129			
Bis(2-chloroisopropyl) ether	5	"	40	49.0		81	36-166			
2-Methylphenol	5	"	34	49.8		69	30-120			
N-Nitrosodi-n-propylamine	5	"	39	50.0		78	1-230			
3 & 4-Methylphenol	10	"	35	49.5		70	32-120			
Hexachloroethane	5	"	40	50.0		80	40-113			
Nitrobenzene	5	"	45	50.0		91	35-180			
Isophorone	5	"	35	49.8		70	21-196			

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Acid and Base/Neutral Extractables by EPA Method 625 - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J15020 - EPA 625										
LCS (5J15020-BS1)			Prepared & Analyzed: 10/15/15							
2-Nitrophenol	5	ug/L	40	49.5		82	29-182			
2,4-Dimethylphenol	5	"	30	50.0		61	32-119			
Bis(2-chloroethoxy)methane	5	"	43	49.5		87	33-184			
Benzoic acid	10	"	16	49.8		31	7-120			
1,2,4-Trichlorobenzene	5	"	41	49.8		83	44-142			
2,4-Dichlorophenol	5	"	42	50.0		84	39-135			
Naphthalene	5	"	34	50.0		68	21-133			
Hexachlorobutadiene	5	"	38	49.0		77	24-120			
p-Chloro-m-cresol	5	"	35	49.8		70	22-147			
2,4,6-Trichlorophenol	5	"	39	50.0		78	37-144			
2-Chloronaphthalene	5	"	39	49.0		79	50-120			
Dimethyl phthalate	5	"	39	49.0		81	1-120			
2,6-Dinitrotoluene	5	"	41	50.0		83	50-158			
Acenaphthylene	5	"	37	49.5		76	33-145			
Acenaphthene	5	"	37	50.0		74	47-145			
2,4-Dinitrophenol	10	"	55	50.0		111	1-191			
2,4-Dinitrotoluene	5	"	38	50.0		76	39-139			
4-Nitrophenol	5	"	18	50.0		36	1-132			
Diethyl phthalate	5	"	40	50.0		81	1-120			
4-Chlorophenyl phenyl ether	5	"	40	49.0		82	25-158			
Fluorene	5	"	37	49.0		75	59-121			
4,6-Dinitro-o-cresol	5	"	41	50.0		83	1-181			
Azobenzene (1,2-diphenylhydrazine)	5	"	40	50.0		81	34-120			
4-Bromophenyl phenyl ether	5	"	38	49.0		78	53-127			
Hexachlorobenzene	5	"	40	49.5		81	1-152			
Pentachlorophenol	5	"	43	49.5		87	14-176			
n-Octadecane	5	"	40	50.0		79	41-120			
Hexachlorocyclopentadiene	5	"	25	49.2		51	5-120			
Phenanthrene	5	"	39	49.8		79	54-120			
Anthracene	5	"	38	49.8		76	27-133			
Di-n-butyl phthalate	5	"	49	50.0		97	1-118			
Fluoranthene	5	"	42	50.0		85	26-137			
Pyrene	5	"	42	49.5		85	52-115			
Benzyl butyl phthalate	5	"	37	49.5		76	50-152			
Bis(2-ethylhexyl) phthalate	5	"	39	49.8		78	8-158			
Benzo(a)anthracene	1	"	39	50.0		78	33-143			
Chrysene	1	"	40	49.5		81	17-168			
Di-n-octyl phthalate	5	"	36	49.5		72	4-146			
Benzo(b)fluoranthene	1	"	41	50.0		82	24-159			
Benzo(k)fluoranthene	0.5	"	46	49.5		93	11-162			
Benzo(a)pyrene	0.2	"	45	50.0		90	17-163			

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Report Date: 10/22/15 14:03

Acid and Base/Neutral Extractables by EPA Method 625 - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J15020 - EPA 625										
LCS (5J15020-BS1)			Prepared & Analyzed: 10/15/15							
Indeno (1,2,3-cd) pyrene	5	ug/L	68	49.5		137	50-171			
Dibenzo(a,h)anthracene	5	"	67	49.5		136	50-227			
Benzo(ghi)perylene	5	"	79	49.5		159	50-219			
Surrogate: 2-Fluorophenol		"		*50.2*	*100*	*50*	*10-120*			
Surrogate: Phenol-d5		"		*33.3*	*100*	*33*	*10-120*			
Surrogate: Nitrobenzene-d5		"		*39.6*	*50.5*	*78*	*12-128*			
Surrogate: 2-Fluorobiphenyl		"		*34.3*	*50.0*	*69*	*12-120*			
Surrogate: 2,4,6-Tribromophenol		"		*71.0*	*100*	*71*	*21-121*			
Surrogate: p-Terphenyl-d14		"		*23.9*	*50.5*	*47*	*11-158*			
LCS Dup (5J15020-BSD1)			Prepared & Analyzed: 10/15/15							
Phenol	5	ug/L	18	50.0		36	5-112	8	30	
Bis(2-chloroethyl)ether	5	"	38	49.8		76	12-158	7	30	
n-Decane	5	"	36	50.0		73	10-120	7	30	
2-Chlorophenol	5	"	35	50.0		69	23-134	8	30	
1,3-Dichlorobenzene	5	"	36	49.5		72	1-172	7	30	
1,4-Dichlorobenzene	5	"	37	50.0		73	20-124	7	30	
Benzyl alcohol	10	"	33	50.0		66	30-120	9	30	
1,2-Dichlorobenzene	5	"	37	49.5		75	32-129	6	30	
Bis(2-chloroisopropyl) ether	5	"	37	49.0		75	36-166	7	30	
2-Methylphenol	5	"	32	49.8		64	30-120	8	30	
N-Nitrosodi-n-propylamine	5	"	35	50.0		71	1-230	10	30	
3 & 4-Methylphenol	10	"	31	49.5		63	32-120	11	30	
Hexachloroethane	5	"	37	50.0		74	40-113	8	30	
Nitrobenzene	5	"	41	50.0		81	35-180	11	30	
Isophorone	5	"	33	49.8		66	21-196	6	30	
2-Nitrophenol	5	"	38	49.5		76	29-182	7	30	
2,4-Dimethylphenol	5	"	29	50.0		59	32-119	3	30	
Bis(2-chloroethoxy)methane	5	"	39	49.5		79	33-184	9	30	
Benzoic acid	10	"	15	49.8		30	7-120	3	30	
1,2,4-Trichlorobenzene	5	"	39	49.8		78	44-142	6	30	
2,4-Dichlorophenol	5	"	39	50.0		77	39-135	9	30	
Naphthalene	5	"	31	50.0		63	21-133	8	30	
Hexachlorobutadiene	5	"	35	49.0		72	24-120	6	30	
p-Chloro-m-cresol	5	"	34	49.8		68	22-147	3	30	
2,4,6-Trichlorophenol	5	"	38	50.0		76	37-144	2	30	
2-Chloronaphthalene	5	"	37	49.0		75	50-120	6	30	
Dimethyl phthalate	5	"	40	49.0		82	1-120	2	30	
2,6-Dinitrotoluene	5	"	41	50.0		83	50-158	0.1	30	
Acenaphthylene	5	"	36	49.5		73	33-145	3	30	
Acenaphthene	5	"	35	50.0		70	47-145	5	30	
2,4-Dinitrophenol	10	"	54	50.0		108	1-191	2	30	

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Report Date: 10/22/15 14:03

Acid and Base/Neutral Extractables by EPA Method 625 - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J15020 - EPA 625										
LCS Dup (5J15020-BSD1)			Prepared & Analyzed: 10/15/15							
2,4-Dinitrotoluene	5	ug/L	37	50.0		74	39-139	2	30	
4-Nitrophenol	5	"	17	50.0		34	1-132	7	30	
Diethyl phthalate	5	"	40	50.0		80	1-120	2	30	
4-Chlorophenyl phenyl ether	5	"	39	49.0		80	25-158	3	30	
Fluorene	5	"	36	49.0		74	59-121	2	30	
4,6-Dinitro-o-cresol	5	"	41	50.0		83	1-181	0.3	30	
Azobenzene (1,2-diphenylhydrazine)	5	"	40	50.0		79	34-120	1	30	
4-Bromophenyl phenyl ether	5	"	37	49.0		76	53-127	4	30	
Hexachlorobenzene	5	"	39	49.5		80	1-152	2	30	
Pentachlorophenol	5	"	42	49.5		85	14-176	2	30	
n-Octadecane	5	"	38	50.0		77	41-120	3	30	
Hexachlorocyclopentadiene	5	"	27	49.2		55	5-120	7	30	
Phenanthrene	5	"	39	49.8		78	54-120	0.8	30	
Anthracene	5	"	39	49.8		78	27-133	2	30	
Di-n-butyl phthalate	5	"	48	50.0		96	1-118	2	30	
Fluoranthene	5	"	43	50.0		86	26-137	1	30	
Pyrene	5	"	42	49.5		85	52-115	0.5	30	
Benzyl butyl phthalate	5	"	37	49.5		75	50-152	0.4	30	
Bis(2-ethylhexyl) phthalate	5	"	39	49.8		78	8-158	0.4	30	
Benzo(a)anthracene	1	"	39	50.0		78	33-143	0.3	30	
Chrysene	1	"	40	49.5		81	17-168	0.2	30	
Di-n-octyl phthalate	5	"	36	49.5		72	4-146	0.5	30	
Benzo(b)fluoranthene	1	"	42	50.0		84	24-159	1	30	
Benzo(k)fluoranthene	0.5	"	46	49.5		93	11-162	0.5	30	
Benzo(a)pyrene	0.2	"	45	50.0		90	17-163	0.8	30	
Indeno (1,2,3-cd) pyrene	5	"	67	49.5		136	50-171	0.6	30	
Dibenzo(a,h)anthracene	5	"	67	49.5		136	50-227	0.2	30	
Benzo(ghi)perylene	5	"	79	49.5		159	50-219	0.4	30	
Surrogate: 2-Fluorophenol		"	*47.1*	*100*		*47*	*10-120*			
Surrogate: Phenol-d5		"	*30.8*	*100*		*31*	*10-120*			
Surrogate: Nitrobenzene-d5		"	*37.0*	*50.5*		*73*	*12-128*			
Surrogate: 2-Fluorobiphenyl		"	*32.7*	*50.0*		*65*	*12-120*			
Surrogate: 2,4,6-Tribromophenol		"	*69.4*	*100*		*69*	*21-121*			
Surrogate: p-Terphenyl-d14		"	*23.8*	*50.5*		*47*	*11-158*			

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Report Date: 10/22/15 14:03

Purgeables by EPA Method 624 - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J14019 - EPA 624										
Blank (5J14019-BLK1)			Prepared & Analyzed: 10/14/15							
Chloromethane	5	ug/L	ND							U
Vinyl chloride	2	"	ND							U
Bromomethane	5	"	ND							U
Chloroethane	5	"	ND							U
Trichlorofluoromethane	5	"	ND							U
1,1-Dichloroethene	5	"	ND							U
Methylene Chloride	5	"	ND							U
trans-1,2-Dichloroethene	5	"	ND							U
1,1-Dichloroethane	5	"	ND							U
Chloroform	5	"	ND							U
Carbon Tetrachloride	5	"	ND							U
1,1,1-Trichloroethane	5	"	ND							U
Benzene	5	"	ND							U
1,2-Dichloroethane	5	"	ND							U
Trichloroethene	5	"	ND							U
1,2-Dichloropropane	5	"	ND							U
Bromodichloromethane	5	"	ND							U
2-Chloroethyl vinyl ether	10	"	ND							U
cis-1,3-Dichloropropene	5	"	ND							U
Toluene	5	"	ND							U
Tetrachloroethene	5	"	ND							U
trans-1,3-Dichloropropene	5	"	ND							U
1,1,2-Trichloroethane	5	"	ND							U
Chlorodibromomethane	5	"	ND							U
Chlorobenzene	5	"	ND							U
Ethylbenzene	5	"	ND							U
Bromoform	5	"	ND							U
1,1,2,2-Tetrachloroethane	5	"	ND							U
1,3-Dichlorobenzene	5	"	ND							U
1,4-Dichlorobenzene	5	"	ND							U
1,2-Dichlorobenzene	5	"	ND							U
Surrogate: Dibromofluoromethane		"		*46.2*	*50.0*	*92*	*70-130*			
Surrogate: Toluene-d8		"		*46.8*	*50.0*	*94*	*70-130*			
Surrogate: 4-Bromofluorobenzene		"		*46.8*	*50.0*	*94*	*70-130*			

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Purgeables by EPA Method 624 - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J14019 - EPA 624										
LCS (5J14019-BS1)			Prepared & Analyzed: 10/14/15							
Chloromethane	5	ug/L	50	50.0		100	50-150			
Vinyl chloride	2	"	49	50.0		97	50-150			
Bromomethane	5	"	51	50.0		102	50-150			
Chloroethane	5	"	53	50.0		106	50-150			
Trichlorofluoromethane	5	"	50	50.0		100	60-140			
1,1-Dichloroethene	5	"	43	50.0		86	60-140			
Methylene Chloride	5	"	45	50.0		90	60-140			
trans-1,2-Dichloroethene	5	"	45	50.0		90	54-156			
1,1-Dichloroethane	5	"	45	50.0		91	59-155			
Chloroform	5	"	45	50.0		90	51-138			
Carbon Tetrachloride	5	"	46	50.0		91	70-140			
1,1,1-Trichloroethane	5	"	48	50.0		95	52-162			
Benzene	5	"	47	50.0		94	37-151			
1,2-Dichloroethane	5	"	49	50.0		98	49-155			
Trichloroethene	5	"	49	50.0		99	62-150			
1,2-Dichloropropane	5	"	48	50.0		96	50-150			
Bromodichloromethane	5	"	49	50.0		98	60-140			
2-Chloroethyl vinyl ether	10	"	41	50.0		81	50-150			
cis-1,3-Dichloropropene	5	"	46	50.0		93	60-140			
Toluene	5	"	46	50.0		91	47-150			
Tetrachloroethene	5	"	49	50.0		98	64-148			
trans-1,3-Dichloropropene	5	"	47	50.0		94	60-140			
1,1,2-Trichloroethane	5	"	45	50.0		90	52-150			
Chlorodibromomethane	5	"	47	50.0		93	53-149			
Chlorobenzene	5	"	48	50.0		97	37-160			
Ethylbenzene	5	"	46	50.0		92	37-162			
Bromoform	5	"	45	50.0		90	45-169			
1,1,2,2-Tetrachloroethane	5	"	46	50.0		92	46-157			
1,3-Dichlorobenzene	5	"	46	50.0		92	60-140			
1,4-Dichlorobenzene	5	"	49	50.0		98	60-140			
1,2-Dichlorobenzene	5	"	49	50.0		97	60-140			
Surrogate: Dibromofluoromethane		"	*45.3*	*50.0*		*91*	*70-130*			
Surrogate: Toluene-d8		"	*50.5*	*50.0*		*101*	*70-130*			
Surrogate: 4-Bromofluorobenzene		"	*51.8*	*50.0*		*104*	*70-130*			

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Results are reported on a "wet weight basis", unless otherwise noted.

EnviroChem, Inc.
Environmental Laboratories

4320 Midmost Drive Mobile, Alabama 36609
Phone (251) 344-9106 Fax (251) 341-9492

Report Date: 10/22/15 14:03

Purgeables by EPA Method 624 - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J14019 - EPA 624										
LCS Dup (5J14019-BSD1)			Prepared & Analyzed: 10/14/15							
Chloromethane	5	ug/L	50	50.0		99	50-150	0.1	30	
Vinyl chloride	2	"	46	50.0		93	50-150	5	30	
Bromomethane	5	"	53	50.0		105	50-150	3	30	
Chloroethane	5	"	50	50.0		101	50-150	5	30	
Trichlorofluoromethane	5	"	47	50.0		93	60-140	7	30	
1,1-Dichloroethene	5	"	43	50.0		86	60-140	0.2	30	
Methylene Chloride	5	"	46	50.0		92	60-140	2	30	
trans-1,2-Dichloroethene	5	"	45	50.0		90	54-156	0.02	30	
1,1-Dichloroethane	5	"	45	50.0		89	59-155	2	30	
Chloroform	5	"	44	50.0		87	51-138	4	30	
Carbon Tetrachloride	5	"	44	50.0		88	70-140	4	30	
1,1,1-Trichloroethane	5	"	51	50.0		101	52-162	6	30	
Benzene	5	"	49	50.0		98	37-151	4	30	
1,2-Dichloroethane	5	"	51	50.0		103	49-155	5	30	
Trichloroethene	5	"	52	50.0		104	62-150	5	30	
1,2-Dichloropropane	5	"	49	50.0		98	50-150	2	30	
Bromodichloromethane	5	"	51	50.0		102	60-140	4	30	
2-Chloroethyl vinyl ether	10	"	45	50.0		90	50-150	10	30	
cis-1,3-Dichloropropene	5	"	50	50.0		99	60-140	7	30	
Toluene	5	"	49	50.0		97	47-150	6	30	
Tetrachloroethene	5	"	52	50.0		104	64-148	6	30	
trans-1,3-Dichloropropene	5	"	50	50.0		101	60-140	7	30	
1,1,2-Trichloroethane	5	"	50	50.0		99	52-150	10	30	
Chlorodibromomethane	5	"	49	50.0		98	53-149	6	30	
Chlorobenzene	5	"	49	50.0		99	37-160	2	30	
Ethylbenzene	5	"	47	50.0		95	37-162	4	30	
Bromoform	5	"	48	50.0		97	45-169	8	30	
1,1,2,2-Tetrachloroethane	5	"	48	50.0		97	46-157	5	30	
1,3-Dichlorobenzene	5	"	46	50.0		92	60-140	0.09	30	
1,4-Dichlorobenzene	5	"	50	50.0		100	60-140	2	30	
1,2-Dichlorobenzene	5	"	49	50.0		98	60-140	0.7	30	
Surrogate: Dibromofluoromethane		"	*44.9*	*50.0*		*90*	*70-130*			
Surrogate: Toluene-d8		"	*51.0*	*50.0*		*102*	*70-130*			
Surrogate: 4-Bromofluorobenzene		"	*52.1*	*50.0*		*104*	*70-130*			

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Report Date: 10/22/15 14:03

Purgeables by EPA Method 624 - Quality Control

Analyte	RL	Units	Result	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch 5J14019 - EPA 624										
Matrix Spike (5J14019-MS1)	**Source: 15J0248-02**		Prepared & Analyzed: 10/14/15							
Chloromethane	5	ug/L	37	50.0	ND	75	50-150			
Vinyl chloride	2	"	39	50.0	ND	77	50-150			
Bromomethane	5	"	45	50.0	ND	89	50-150			
Chloroethane	5	"	41	50.0	ND	82	14-150			
Trichlorofluoromethane	5	"	43	50.0	ND	87	60-160			
1,1-Dichloroethene	5	"	46	50.0	ND	92	50-150			
Methylene Chloride	5	"	45	50.0	ND	90	50-150			
trans-1,2-Dichloroethene	5	"	47	50.0	ND	94	54-156			
1,1-Dichloroethane	5	"	49	50.0	ND	97	59-155			
Chloroform	5	"	47	50.0	ND	94	51-138			
Carbon Tetrachloride	5	"	50	50.0	ND	100	70-140			
1,1,1-Trichloroethane	5	"	53	50.0	ND	106	52-162			
Benzene	5	"	50	50.0	ND	100	37-151			
1,2-Dichloroethane	5	"	53	50.0	ND	106	49-155			
Trichloroethene	5	"	54	50.0	ND	108	50-150			
1,2-Dichloropropane	5	"	51	50.0	ND	102	50-150			
Bromodichloromethane	5	"	51	50.0	ND	102	50-150			
2-Chloroethyl vinyl ether	10	"	ND	50.0	ND		50-150			U
cis-1,3-Dichloropropene	5	"	45	50.0	ND	91	50-150			
Toluene	5	"	50	50.0	ND	99	47-150			
Tetrachloroethene	5	"	55	50.0	ND	109	64-148			
trans-1,3-Dichloropropene	5	"	48	50.0	ND	95	50-150			
1,1,2-Trichloroethane	5	"	48	50.0	ND	95	52-150			
Chlorodibromomethane	5	"	49	50.0	ND	98	53-149			
Chlorobenzene	5	"	51	50.0	ND	103	37-160			
Ethylbenzene	5	"	50	50.0	ND	99	37-162			
Bromoform	5	"	49	50.0	ND	98	45-169			
1,1,2,2-Tetrachloroethane	5	"	47	50.0	ND	95	46-157			
1,3-Dichlorobenzene	5	"	49	50.0	ND	97	50-150			
1,4-Dichlorobenzene	5	"	50	50.0	ND	99	50-150			
1,2-Dichlorobenzene	5	"	48	50.0	ND	96	50-150			
Surrogate: Dibromofluoromethane		"	*46.3*	*50.0*		*93*	*70-130*			
Surrogate: Toluene-d8		"	*51.2*	*50.0*		*102*	*70-130*			
Surrogate: 4-Bromofluorobenzene		"	*52.9*	*50.0*		*106*	*70-130*			

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4320 Midmost Drive Mobile, Alabama 36609
Phone (251) 344-9106 Fax (251) 341-9492

Client: BCSS
Address: P.O. Box 1628
City/ST/Zip: Foley, AL 36536
Phone: 964-7586
Fax: (251) 968-4047

Project: Spanish Fort - Permit Application
Project Manager: David Flesch
Project/PO #: [none]

CHAIN OF CUSTODY RECORD
Agreement to Perform Services

Method of Delivery: ___UPS ___FedX ___ECI Pick-up ___Drop Off ___Bus ___ECI Sampled ___USPS ___Dropbox

Lab No.: 15J0248

Routine TAT is 10+ working days. Rush TAT requires approval and may incur additional charges
___24 hrs ___72 hrs ___5 days ___Routine

Report email:

Invoice email:

Comments:

Number	Sample Identification	Matrix	Type	Date/Time Sampled	Sampled By	Field Measurements D.O., mg/l	Cl2, mg/l	pH, su	Temp, oC	Analyses
01	**Spanish Fort - Composite**	Water	Composite	10/14/15 0810	[illegible]					(14) ~~Fecal Coliform, MF~~ (16) Ag 200.8 (16) As 200.8 (16) Be 200.8 (16) Cd 200.8 (16) Cr 200.8 (16) Cu 200.8 (16) Hardness (group) (16) Hg 245.1 (16) Ni 200.8 (16) Pb 200.8 (16) Sb 200.8 (16) Se 200.8 (16) Tl 200.8 (16) Zn 200.8 (18) BOD (18) BOD-C (18) CN - Total (18) NH3 (18) Nitrogen, Total Kjeldahl (18) NO3+NO2 (18) Phenols (18) Phos, Lachat (18) Solids, TDS (18) Solids, TSS EPA 625 - Semi Volatiles

Containers/Lab Preservation Check:

250mL Plastic pH>12 w/ NaOH	pH Check 12.5	☐ Bench pH ☐ N/A
250ml Plastic pH <2 w/HNO3	pH Check	☒ Bench pH ☐ N/A
250mL Plastic pH <2 w/ H2SO4 Cool to 4° C	pH Check 1.5	☐ Bench pH ☐ N/A
250mL Amber Glass pH <2 w/ H2SO4 Cool to 4° C	pH Check 1.5	☐ Bench pH ☐ N/A
125mL Plastic (sterile) Na2S2O3; Cool to 4° C	pH Check	☐ Bench pH ☒ N/A
1000mL Plastic Cool to 4° C	pH Check	☐ Bench pH ☒ N/A
1000mL Amber Glass Cool to 4° C	pH Check	☐ Bench pH ☒ N/A

Autosampler: ___ECI X Client Date/Time: Begin 0635 End 0535 Flow Reading

Number	Sample Identification	Matrix	Type	Date/Time Sampled	Sampled By	Field Measurements D.O., mg/l	Cl2, mg/l	pH, su	Temp, oC	Fecal, Coliform MF Analyses
02	**Spanish Fort - Grab**	Water	Grab	10/14/15 0525	[illegible]	7.63		6.84	22.0	(18) O&G EPA 624 - Volatiles

Containers/Lab Preservation Check:

40mL Clear Vial HCl Cool to 4°	pH Check	☒ Bench pH ☐ N/A
1000mL NM Clear Glass pH <2 w/ H2SO4 Cool to 4°	pH Check	☒ Bench pH ☐ N/A

Autosampler: ___ECI ___Client Date/Time: Begin ___ End ___ Flow Reading

Lab Number: 15J0248 BCSS

Printed: 10/12/2015 12:56:16PM

CoolerTemp: 4.8oC Ice Present: (Y) N Air bubbles present in VOA vials: Y (N) N/A Custody seals intact: Y N (N/A) Correct containers: (Y) N N/A Damaged containers: Y (N) N/A Hold time(s) exceeded: Y (N) N/A ID discrepencies: Y (N) N/A	Corrective action taken: Y N If yes, explain: Person contacted: Date/Time: Contacted by: Proceed with work order: Y N

Relinquished By	Date/Time	Relinquished By	Date/Time	Relinquished By	Date/Time
KZ MK	10/14/15 0940				
Received By	Date/Time	Received By	Date/Time	Received By	Date/Time
Jennifer Wheat	10/14/15 9:40				

Submittal of sample(s) indicates the client's recognition and acceptance of EnviroChem's Terms and Conditions, unless otherwise agreed to in writing by both parties.

Printed: 10/12/2015 12:56:16PM

Lab Number: 15TA2418 BCSS

Energy Technical Services, LLC
Northport, Alabama 205.330.7994
Mobile, Alabama 251.288.3766
fuels - water - environmental

Analytical Report

Customer: Baldwin County Sewer Services
14747 Underwood Road
Summerdale, AL 36580

Date/Time collected: 3/2/15 9:05
Sampled by: Connell, Terry
Sample type: Grab/Composite
Customer ID: 2A Effluent

Project Name: Spanish Fort 2A Permit Renewal
ETS Sample ID: 150302O002
Location: Effluent

Analyte	Analysis Started Date/Time/Analyst	Result	Units	Det Lim	Dil. Factor	Method
Ammonia (NH3)	3/12/2015 09:30 raw	0.11	mg/L	0.05	1	EPA 350.1
Antimony, Total or Recoverable	3/12/2015 14:44 kjd	< 0.100	mg/L	0.1	1	SM 3111 B 1999
Arsenic, Total or Recoverable	3/12/2015 12:30 kjd	< 0.005	mg/L	0.005	1	EPA 200.9
Beryllium, Total or Recoverable	3/12/2015 12:30 chc	< 0.010	mg/L	0.010	1	EPA 200.9
Cadmium, Total or Recoverable	3/12/2015 13:00 kjd	< 0.005	mg/L	0.005	1	EPA 200.9
Carbonaceous BOD, C-BOD	3/4/2015 09:00 raw	3.7	mg/L	2.0	1	SM 5210 B 2001
Chromium, Total or Recoverable	3/12/2015 13:18 chc	< 0.01	mg/L	0.01	1	EPA 200.9
Copper, Total or Recoverable	3/13/2015 09:20 jcg	< 0.005	mg/L	0.005	1	SM 3111 B 1999
Cyanide, Total	3/10/2015 08:30 raw	< 0.01	mg/L	0.01	1	SM 4500 CN C&E
Dissolved Oxygen	3/2/2015 09:15 tc	9.22	mg/L			SM 4500 O G 2001
E. coli	3/2/2015 16:00 raw	461	MPN/100ml	1	1	Idexx Colilert
Hardness as CaCO3	3/13/2015 14:04 chc	24.13	mg/L	1		SM 3111 B 1999
Lead, Total or Recoverable	3/13/2015 09:10 jcg	< 0.005	mg/L	0.005	1	EPA 200.9
Mercury	3/12/2015 14:00 jcg	< 0.001	mg/L	0.001	1	EPA 245.1
Nickel, Total or Recoverable	3/13/2015 08:45 jcg	< 0.01	mg/L	0.01	1	SM 3111 B 1999
Nitrate	3/3/2015 14:00 raw	2.26	mg/L	0.05	1	EPA 353.2 1993
Nitrite	3/3/2015 10:00 raw	4.88	mg/L	0.5	10	USGS I 4540-85
Oil & Grease (O&G)	3/3/2015 09:00 raw	4.5	mg/L	1.0	1	EPA 1664B 2010
Phenols, Total	3/10/2015 17:06 ta	< 0.05	mg/L	0.05	1	EPA 420.4
pH-Field	3/2/2015 09:15 tc	6.91	S. U.			SM 4500-H+B 2000
Phosphorus, Total (PO4)	3/3/2015 11:50 raw	3.55	mg/L	0.05	1	EPA 365.3 1978
Total Residual Chlorine - Field	3/2/2015 09:15 tc	< 0.01	mg/L			SM 4500 Cl G 2000
Selenium, Total or Recoverable	3/12/2015 13:34 kjd	< 0.01	mg/L	0.01	1	EPA 200.9
Silver, Total or Recoverable	3/12/2015 14:25 chc	< 0.01	mg/L	0.01	1	SM 3111 B 1999
Temperature, C	3/2/2015 08:00 tlc	16.4	C			SM 2550 B 2000
Thallium, Total or Recoverable	3/13/2015 09:00 jcg	< 0.020	mg/L	0.020	1	EPA 200.9
Total Dissolved Solids (TDS)	3/5/2015 13:00 raw	268	mg/L	1.0	1	SM 2540 C 1997
Total Keldjahl Nitrogen (TKN)	3/4/2015 08:00 raw	4.38	mg/L	0.1	1	Hach 10242
Total Suspended Solids,TSS	3/5/2015 09:00 raw	6.4	mg/L	1.0	1	USGS I 3765-85
Zinc, Total or Recoverable	3/13/2015 09:40 jcg	0.065	mg/L	0.005	1	SM 3111 B 1999

Acenaphthene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Acenaphthylene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Anthracene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Benzidine	3/4/2015	07:31	ta	<95.0	ug/L	95.0	1	EPA 625
Benzo(a)anthracene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Benzo(a)pyrene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
3,4 Benzo-fluoranthene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Benzo(g,h,i)perylene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Benzo(k)fluoranthene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Butyl benzyl phthalate	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
bis(2-Chloroethoxy) methane	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
bis(2-Chloroethyl) ether	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
bis(2-Ethylhexyl) phthalate	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
4-Bromophenyl phenyl ether	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
P-Chloro-M-Cresol	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
2-Chloronaphthalene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
2-Chlorophenol	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
4-Chlorophenyl phenyl ether	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Chrysene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Dibenzo(a,h)anthracene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
3,3'-Dichlorobenzidine	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Diethyl phthalate	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
2,4-Dimethylphenol	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Dimethyl phthalate	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Di-n-butyl phthalate	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Di-n-octyl phthalate	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
2, 4-Dinitrophenol	3/4/2015	07:31	ta	<25.0	ug/L	25.0	1	EPA 625
2,4-Dinitrotoluene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
2,6-Dinitrotoluene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Fluoranthene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Fluorene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Hexachlorobenzene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Hexachlorobutadiene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Hexachlorocyclopentadiene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Hexachloroethane	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Indeno(1,2,3-c,d) pyrene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Isophorone	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Naphthalene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Nitrobenzene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
2-Nitrophenol	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
4-Nitrophenol	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
N-Nitrosodimethylamine	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
N-Nitrosodi-n-propylamine	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
N-Nitrosodiphenylamine	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
bis(2-Chloroisopropyl) ether	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Pentachlorophenol	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Phenanthrene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Phenol	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
Pyrene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
1,2,4-Trichlorobenzene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
2,4,6-Trichlorophenol	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
1,2 Dichlorobenzene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
1,3 Dichlorobenzene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
1,4 Dichlorobenzene	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
2,4 Dichlorophenol	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625
4,6 Dinitro-2-cresol	3/4/2015	07:31	ta	<25.0	ug/L	25.0	1	EPA 625
1,2-Diphenylhydrazine (as Azobenzene)	3/4/2015	07:31	ta	<10.0	ug/L	10.0	1	EPA 625

Acrolein	3/4/2015	14:45	ta	<50.0	ug/L	50.0	1	EPA 624
Acrylonitrile	3/4/2015	14:45	ta	<10.0	ug/L	10.0	1	EPA 624
Benzene	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Bromoform	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Methyl Bromide	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Carbon tetrachloride	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Chlorobenzene	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Chloroethane	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
2-Chloroethylvinyl ether	3/4/2015	14:45	ta	<5.0	ug/L	5.0	1	EPA 624
Chloroform	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
1,1-Dichloroethane	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
1,2-Dichloroethane	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
1,1-Dichloroethene	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
trans-1,2-Dichloroethene	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
1,2-Dichloropropane	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Ethylbenzene	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Methylene chloride	3/4/2015	14:45	ta	<5.0	ug/L	5.0	1	EPA 624
1,1,2,2-Tetrachloroethane	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Tetrachloroethene	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Toluene	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
1,1,1-Trichloroethane	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
1,1,2-Trichloroethane	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Trichloroethene	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Vinyl chloride	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Chlorodibromo-methane	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Dichlorobromo-methane	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
1,3 Dichloro-propylene	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624
Methyl chloride	3/4/2015	14:45	ta	<1.0	ug/L	1.0	1	EPA 624

Note: Samples were analyzed in general accordance with the following Method References
-Code of Federal Regulations, Title 40, Part 136
-Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846
-ASTM Annual Standards

Approved by: Lennette West, QC Manager **Date:** 3/23/2015

report sent via email

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

October 30, 2017

David Flesch
BCSS
P.O. Box 1628
Foley, AL 36536

RE: Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

Dear David Flesch:
Enclosed are the analytical results for sample(s) received by the laboratory on October 17, 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,

MK Brenner

Mary Kathryn Brenner
marykathryn.brenner@pacelabs.com
251-344-9106
Project Manager

Enclosures

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

CERTIFICATIONS

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch: 11277CA
Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 0025721
Kansas Department of Health and Environment (NELAC): E-10266
Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006
Pennsylvania Dept. of Env Protection (NELAC): 68-04202
Texas Commission on Env. Quality (NELAC): T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-00119
Commonwealth of Virginia (TNI): 480246

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 17-016-0
Illinois Certification #: 200030
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212018-1
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

Mobile Certification IDs

4320 Midmost Drive, Mobile, AL 36609
Alabama Certification #: 40810
Florida Certification #: E87977

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251-344-9106

SAMPLE SUMMARY

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2063484001	Effluent - Composite	Water	10/17/17 10:30	10/17/17 12:10
2063484002	Effluent - Grab	Water	10/17/17 10:30	10/17/17 12:10

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SAMPLE ANALYTE COUNT

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2063484001	**Effluent - Composite**	EPA 200.7	MHB1	17	PASI-N
		EPA 245.2	ARW	1	PASI-N
		SM 5210B	TGH	1	PASI-MO
		SM 2540D	KWS	1	PASI-N
		EPA 9040	MCT	1	PASI-N
		EPA 351.2	RAD	1	PASI-K
		EPA 365.4	CRS	1	PASI-K
		SM 4500-NH3 G	JLM	1	PASI-N
		SM 4500-NO3 F	JLM	1	PASI-N
		SM 5220D	MCT	1	PASI-N
2063484002	**Effluent - Grab**	SM 3500-Cr B	MCT	1	PASI-N
		EPA 9012	MCT	1	PASI-N

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ANALYTICAL RESULTS

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

Sample: Effluent - Composite **Lab ID: 2063484001** Collected: 10/17/17 10:30 Received: 10/17/17 12.10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Aluminum	ND	ug/L	200	1	10/18/17 07:40	10/18/17 19:44	7429-90-5	
Antimony	ND	ug/L	60.0	1	10/18/17 07:40	10/18/17 19:44	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/18/17 07:40	10/18/17 19:44	7440-38-2	
Barium	ND	ug/L	200	1	10/18/17 07:40	10/18/17 19:44	7440-39-3	
Beryllium	ND	ug/L	5.0	1	10/18/17 07:40	10/18/17 19:44	7440-41-7	
Cadmium	ND	ug/L	5.0	1	10/18/17 07:40	10/18/17 19:44	7440-43-9	
Chromium	ND	ug/L	10.0	1	10/18/17 07:40	10/18/17 19:44	7440-47-3	
Copper	ND	ug/L	10.0	1	10/18/17 07:40	10/18/17 19:44	7440-50-8	
Iron	**96.7**	ug/L	50.0	1	10/18/17 07:40	10/18/17 19:44	7439-89-6	
Lead	ND	ug/L	5.0	1	10/18/17 07:40	10/18/17 19:44	7439-92-1	
Manganese	**27.4**	ug/L	10.0	1	10/18/17 07:40	10/18/17 19:44	7439-96-5	
Nickel	ND	ug/L	40.0	1	10/18/17 07:40	10/18/17 19:44	7440-02-0	
Selenium	ND	ug/L	20.0	1	10/18/17 07:40	10/18/17 19:44	7782-49-2	
Silver	ND	ug/L	10.0	1	10/18/17 07:40	10/18/17 19:44	7440-22-4	
Thallium	ND	ug/L	10.0	1	10/18/17 07:40	10/18/17 19:44	7440-28-0	
Tin	ND	ug/L	50.0	1	10/18/17 07:40	10/18/17 19:44	7440-31-5	
Zinc	**72.1**	ug/L	20.0	1	10/18/17 07:40	10/18/17 19:44	7440-66-6	
245.2 Mercury	Analytical Method: EPA 245.2 Preparation Method: EPA 245.2							
Mercury	ND	ug/L	0.20	1	10/18/17 08:45	10/18/17 14:40	7439-97-6	
5210B cBOD, 5 day	Analytical Method: SM 5210B Preparation Method: SM 5210B							
Carbonaceous BOD, 5 day	**3.0**	mg/L	2.0	1	10/18/17 14:35	10/23/17 12:00		
2540D Total Suspended Solids	Analytical Method: SM 2540D							
Total Suspended Solids	**5.0**	mg/L	4.0	1		10/18/17 13:15		
9040 pH	Analytical Method: EPA 9040							
pH at 25 Degrees C	**7.2**	Std. Units	0.010	1		10/19/17 12:24		H3,H6
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**5.0**	mg/L	0.50	1		10/24/17 13:23	7727-37-9	
365.4 Total Phosphorus	Analytical Method: EPA 365.4							
Phosphorus	**0.64**	mg/L	0.10	1		10/24/17 12:36	7723-14-0	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G							
Nitrogen, Ammonia	**2.2**	mg/L	0.10	1		10/18/17 14:49	7664-41-7	
4500NO3-F, NO3-NO2	Analytical Method: SM 4500-NO3 F							
Nitrogen, NO2 plus NO3	**7.0**	mg/L	0.50	10		10/19/17 13:02		
5220D COD	Analytical Method: SM 5220D Preparation Method: SM 5220D							
Chemical Oxygen Demand	**21.0**	mg/L	5.0	1	10/18/17 10:23	10/18/17 13:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
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251-344-9106

ANALYTICAL RESULTS

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

Sample: Effluent - Grab **Lab ID: 2063484002** Collected: 10/17/17 10:30 Received: 10/17/17 12:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B							
Chromium, Hexavalent	ND	mg/L	0.010	1		10/18/17 10:05	18540-29-9	M1
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9010							
Cyanide	ND	mg/L	0.010	1	10/19/17 09:08	10/28/17 10:28	57-12-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 92049
QC Batch Method: EPA 245.2
Analysis Method: EPA 245.2
Analysis Description: 245.2 Mercury
Associated Lab Samples: 2063484001

METHOD BLANK: 395770 Matrix: Water
Associated Lab Samples: 2063484001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	10/18/17 14:29	

LABORATORY CONTROL SAMPLE: 395771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	1.0	101	80-120	

MATRIX SPIKE SAMPLE: 395773

Parameter	Units	2063465001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	0.67	1	1.2	56	75-125	M1

SAMPLE DUPLICATE: 395772

Parameter	Units	2063465001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	0.67	0.28	82	20	D6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 92297
QC Batch Method: SM 5210B
Analysis Method: SM 5210B
Analysis Description: 5210B cBOD, 5 day
Associated Lab Samples: 2063484001

METHOD BLANK: 396759
Matrix: Water
Associated Lab Samples: 2063484001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Carbonaceous BOD, 5 day	mg/L	ND	2.0	10/23/17 12:00	

LABORATORY CONTROL SAMPLE: 396765

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbonaceous BOD, 5 day	mg/L	198	188	95	85-115	

SAMPLE DUPLICATE: 396766

Parameter	Units	2063488001 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbonaceous BOD, 5 day	mg/L	149	155	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 92044
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 2063484001

METHOD BLANK: 395735
Matrix: Water
Associated Lab Samples: 2063484001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	10/18/17 18:55	
Antimony	ug/L	ND	60.0	10/18/17 18:55	
Arsenic	ug/L	ND	10.0	10/18/17 18:55	
Barium	ug/L	ND	200	10/18/17 18:55	
Beryllium	ug/L	ND	5.0	10/18/17 18:55	
Cadmium	ug/L	ND	5.0	10/18/17 18:55	
Chromium	ug/L	ND	10.0	10/18/17 18:55	
Copper	ug/L	ND	10.0	10/18/17 18:55	
Iron	ug/L	ND	50.0	10/18/17 18:55	
Lead	ug/L	ND	5.0	10/18/17 18:55	
Manganese	ug/L	ND	10.0	10/18/17 18:55	
Nickel	ug/L	ND	40.0	10/18/17 18:55	
Selenium	ug/L	ND	20.0	10/18/17 18:55	
Silver	ug/L	ND	10.0	10/18/17 18:55	
Thallium	ug/L	ND	10.0	10/18/17 18:55	
Tin	ug/L	ND	50.0	10/18/17 18:55	
Zinc	ug/L	ND	20.0	10/18/17 18:55	

LABORATORY CONTROL SAMPLE: 395736

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10400	104	85-115	
Antimony	ug/L	1000	1030	103	85-115	
Arsenic	ug/L	1000	1040	104	85-115	
Barium	ug/L	1000	1040	104	85-115	
Beryllium	ug/L	1000	1040	104	85-115	
Cadmium	ug/L	1000	1020	102	85-115	
Chromium	ug/L	1000	1010	101	85-115	
Copper	ug/L	1000	1040	104	85-115	
Iron	ug/L	10000	10600	106	85-115	
Lead	ug/L	1000	1020	102	85-115	
Manganese	ug/L	1000	1020	102	85-115	
Nickel	ug/L	1000	1020	102	85-115	
Selenium	ug/L	1000	1050	105	85-115	
Silver	ug/L	500	509	102	85-115	
Thallium	ug/L	1000	983	98	85-115	
Tin	ug/L	1000	1000	100	85-115	
Zinc	ug/L	1000	1020	102	85-115	

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Pace Analytical Services, LLC
4320 Midmost Dr
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

MATRIX SPIKE SAMPLE: 395738

Parameter	Units	2063465001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	390	10000	9480	91	70-130	
Antimony	ug/L	ND	1000	818	82	70-130	
Arsenic	ug/L	43.0	1000	922	88	70-130	
Barium	ug/L	441	1000	1230	79	70-130	
Beryllium	ug/L	ND	1000	801	80	70-130	
Cadmium	ug/L	ND	1000	641	64	70-130	M1
Chromium	ug/L	ND	1000	653	65	70-130	M1
Copper	ug/L	9170	1000	10000	84	70-130	
Iron	ug/L	8240	10000	13100	48	70-130	M1
Lead	ug/L	19.0	1000	651	63	70-130	M1
Manganese	ug/L	849	1000	1480	63	70-130	M1
Nickel	ug/L	ND	1000	648	61	70-130	M1
Selenium	ug/L	ND	1000	858	85	70-130	
Silver	ug/L	ND	500	449	90	70-130	
Thallium	ug/L	ND	1000	529	53	70-130	M1
Tin	ug/L	ND	1000	646	64	70-130	M1
Zinc	ug/L	9390	1000	9950	56	70-130	M1

SAMPLE DUPLICATE: 395737

Parameter	Units	2063465001 Result	Dup Result	RPD	Max RPD	Qualifiers
Aluminum	ug/L	390	383	2	20	
Antimony	ug/L	ND	ND		20	
Arsenic	ug/L	43.0	42.9	0	20	
Barium	ug/L	441	374	17	20	
Beryllium	ug/L	ND	ND		20	
Cadmium	ug/L	ND	ND		20	
Chromium	ug/L	ND	3.5J		20	
Copper	ug/L	9170	9080	1	20	
Iron	ug/L	8240	5150	46	20	D6
Lead	ug/L	19.0	19.1	0	20	
Manganese	ug/L	849	833	2	20	
Nickel	ug/L	ND	36.2J		20	
Selenium	ug/L	ND	5.6J		20	
Silver	ug/L	ND	ND		20	
Thallium	ug/L	ND	ND		20	
Tin	ug/L	ND	ND		20	
Zinc	ug/L	9390	9330	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 92137
QC Batch Method: SM 2540D
Analysis Method: SM 2540D
Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 2063484001

METHOD BLANK: 396146
Matrix: Water
Associated Lab Samples: 2063484001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	4.0	10/18/17 13:06	

LABORATORY CONTROL SAMPLE: 396147

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	84.0	84	80-120	

SAMPLE DUPLICATE: 396148

Parameter	Units	2063461002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	87.0	94.0	8	20	

SAMPLE DUPLICATE: 396149

Parameter	Units	2063512001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	95.0	109	14	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 92244
QC Batch Method: EPA 9040
Analysis Method: EPA 9040
Analysis Description: 9040 pH
Associated Lab Samples: 2063484001

LABORATORY CONTROL SAMPLE: 396583

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	6	6.0	100	97-103	H6

SAMPLE DUPLICATE: 396584

Parameter	Units	2063398001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	5.4	5.4	0	20	H3,H6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 92069
QC Batch Method: SM 3500-Cr B
Analysis Method: SM 3500-Cr B
Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 2063484002

METHOD BLANK: 395914
Matrix: Water
Associated Lab Samples: 2063484002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	ND	0.010	10/18/17 13:20	

LABORATORY CONTROL SAMPLE: 395915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.2	0.21	104	90-110	

MATRIX SPIKE SAMPLE: 395917

Parameter	Units	2063484002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	ND	.25	ND	-2	75-125	M1

SAMPLE DUPLICATE: 395916

Parameter	Units	2063484002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/L	ND	.0056J		20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 499864 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 2063484001

METHOD BLANK: 2045919 Matrix: Water
Associated Lab Samples: 2063484001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	0.50	10/24/17 12:52	

LABORATORY CONTROL SAMPLE: 2045920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	5.4	107	90-110	

MATRIX SPIKE SAMPLE: 2045921

Parameter	Units	2062583002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	2.1	5	7.7	111	90-110	M1

MATRIX SPIKE SAMPLE: 2045923

Parameter	Units	60255766002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4.6	5	8.0	67	90-110	M1

SAMPLE DUPLICATE: 2045922

Parameter	Units	60255521001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	29.2	29.0	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 499800
QC Batch Method: EPA 365.4
Analysis Method: EPA 365.4
Analysis Description: 365.4 Phosphorus
Associated Lab Samples: 2063484001

METHOD BLANK: 2045744 Matrix: Water
Associated Lab Samples: 2063484001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.10	10/24/17 12:01	

LABORATORY CONTROL SAMPLE: 2045745

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	2	2.0	101	90-110	

MATRIX SPIKE SAMPLE: 2045746

Parameter	Units	2063587001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	4.0	2	3.1	-44	90-110	M1

MATRIX SPIKE SAMPLE: 2045748

Parameter	Units	2063279003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	1.0	2	3.1	103	90-110	

SAMPLE DUPLICATE: 2045747

Parameter	Units	2063398001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	ND	ND		10	

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
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 92077
QC Batch Method: SM 4500-NH3 G
Analysis Method: SM 4500-NH3 G
Analysis Description: 4500 Ammonia
Associated Lab Samples: 2063484001

METHOD BLANK: 395947
Matrix: Water
Associated Lab Samples: 2063484001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	10/18/17 14:25	

LABORATORY CONTROL SAMPLE: 395948

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1.5	1.6	108	90-110	

MATRIX SPIKE SAMPLE: 395950

Parameter	Units	2063231005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.19	10	9.8	96	75-125	

SAMPLE DUPLICATE: 395949

Parameter	Units	2063231005 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	0.19	0.17	12	20	

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
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 92221 Analysis Method: SM 4500-NO3 F
QC Batch Method: SM 4500-NO3 F Analysis Description: SM4500NO3-F, Nitrate, Preserved
Associated Lab Samples: 2063484001

METHOD BLANK: 396471 Matrix: Water
Associated Lab Samples: 2063484001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.050	10/19/17 11:20	

LABORATORY CONTROL SAMPLE: 396472

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	1.5	1.5	99	90-110	

MATRIX SPIKE SAMPLE: 396474

Parameter	Units	2063492001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	1	1.8	183	80-120	M1

SAMPLE DUPLICATE: 396473

Parameter	Units	2063492001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	ND		20	

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
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 92071 Analysis Method: SM 5220D
QC Batch Method: SM 5220D Analysis Description: 5220D COD
Associated Lab Samples: 2063484001

METHOD BLANK: 395924 Matrix: Water
Associated Lab Samples: 2063484001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	5.0	10/18/17 13:01	

METHOD BLANK: 396012 Matrix: Water
Associated Lab Samples: 2063484001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	5.0	10/18/17 13:03	

LABORATORY CONTROL SAMPLE: 395925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	100	108	108	90-110	

LABORATORY CONTROL SAMPLE: 396013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	100	101	101	90-110	

MATRIX SPIKE SAMPLE: 395927

Parameter	Units	2063444001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	3710	1000	4750	104	75-125	

SAMPLE DUPLICATE: 395926

Parameter	Units	2063444001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	3710	3720	0	20	

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
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

QC Batch: 92208
QC Batch Method: EPA 9010
Analysis Method: EPA 9012
Analysis Description: EPA 9012 Cyanide
Associated Lab Samples: 2063484002

METHOD BLANK: 396419
Matrix: Water
Associated Lab Samples: 2063484002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.010	10/28/17 10:28	

LABORATORY CONTROL SAMPLE: 396420

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.097	97	80-120	

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
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALIFIERS

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

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

J - Estimated concentration above the adjusted method detection limit and below the 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-K	Pace Analytical Services - Kansas City
PASI-MO	Pace Analytical Services - Mobile Labs
PASI-N	Pace Analytical Services - New Orleans

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
H3	Sample was received or analysis requested beyond the recognized method holding time.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Priority Pollutants 100/17/17
Pace Project No.: 2063484

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2063484001	**Effluent - Composite**	EPA 200.7	92044	EPA 200.7	92083
2063484001	**Effluent - Composite**	EPA 245.2	92049	EPA 245.2	92089
2063484001	**Effluent - Composite**	SM 5210B	92297	SM 5210B	92299
2063484001	**Effluent - Composite**	SM 2540D	92137		
2063484001	**Effluent - Composite**	EPA 9040	92244		
2063484002	**Effluent - Grab**	SM 3500-Cr B	92069		
2063484001	**Effluent - Composite**	EPA 351.2	499864		
2063484001	**Effluent - Composite**	EPA 365.4	499800		
2063484001	**Effluent - Composite**	SM 4500-NH3 G	92077		
2063484001	**Effluent - Composite**	SM 4500-NO3 F	92221		
2063484001	**Effluent - Composite**	SM 5220D	92071	SM 5220D	92114
2063484002	**Effluent - Grab**	EPA 9010	92208	EPA 9012	92491

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10/17

Page: of

2186831

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: BCSS	Report To: DAVID FLESCH	Attention:
Address:	Copy To:	Company Name:
		Address:
Email To: DAVID.FLESCH@BALDWINCOUNTYSEWER.COM	Purchase Order No.:	Pace Quote Reference:
Phone: 251-747-2977 Fax:	Project Name: BCSS-Spanish Fort	Pace Project Manager:
Requested Due Date/TAT:	Project Number: ADEM Spill	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Metals	BOD	NH3/TKN	TSS	T. Phos	Nitrate/Nitrite	COD	Oil	Cr+6	CN	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Eff - Composite	WW	C	10/16	10:31	10/17	10:30												X	X	X	X	X	X	X	X		Ballotant Screw
2																												
3	Eff - Grab	WW	G	—	—	10/17	10:30																			X	X	
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

WO#: 2063484

2063484

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
		10/17	1130		10/17	1130	
		10/17	1210		10/17/17	1210	
	Greyhound	10-18-17	0710		10-18-17	0710	1.0 / 1.1 Y Y Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: DAVID FLESCH

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/17/17

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
1.0 / 1.1	Y	Y	Y

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical
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Sample Condition Upon Receipt

Client Name: BCSS

Courier: FedEx ☐ UPS ☐ Pace ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☐ No ☐ Seals intact: Yes ☐ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☐

Thermometer Used: IR-001 **Type of Ice:** Wet Blue None

Cooler Temperature (°C): **As-read** _____ **Corr. Factor** _____ **Corrected** _____

Date and initials of person examining contents: _____

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	**WO#: 2063484**
Samples arrived within holding time:	☑Yes ☐No ☐N/A	**PM: MKB Due Date: 10/27/17**
Short Hold Time analyses (<72hr):	☐Yes ☐No ☐N/A	**CLIENT: MO-BCSS**
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	no times on COC
Samples contain multiple phases? Matrix:	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO3, H2SO4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☑Yes ☐No ☐N/A	
Cyanide water sample checks:		
Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: D. Flesh Date/Time: _____

Comments/ Resolution: left message

Project Manager Review: MKBenn Date: 10/17/17

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

October 30, 2017

David Flesch
BCSS
P.O. Box 1628
Foley, AL 36536

RE: Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Dear David Flesch:
Enclosed are the analytical results for sample(s) received by the laboratory on October 19, 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,

MK Brenner

Mary Kathryn Brenner
marykathryn.brenner@pacelabs.com
251-344-9106
Project Manager

Enclosures

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

CERTIFICATIONS

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

New Orleans Certification IDs
California Env. Lab Accreditation Program Branch: 11277CA
Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 0025721
Kansas Department of Health and Environment (NELAC): E-10266
Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006
Pennsylvania Dept. of Env Protection (NELAC): 68-04202
Texas Commission on Env. Quality (NELAC): T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-00119
Commonwealth of Virginia (TNI): 480246

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 17-016-0
Illinois Certification #: 200030
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212018-1
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

Mobile Certification IDs
4320 Midmost Drive, Mobile, AL 36609
Alabama Certification #: 40810
Florida Certification #: E87977

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

SAMPLE SUMMARY

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2063624001	**Effluent - Composite**	Water	10/19/17 08:00	10/19/17 11:03
2063624002	**Effluent - Grab**	Water	10/19/17 09:00	10/19/17 11:03

Pace Analytical Services, LLC
4320 Midmost Dr
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251-344-9106

SAMPLE ANALYTE COUNT

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2063624001	**Effluent - Composite**	EPA 200.7	MHB1	22	PASI-N
		SM 5210B	TGH	1	PASI-MO
		SM 2540D	KWS	1	PASI-N
		EPA 9040	MCT	1	PASI-N
		EPA 351.2	RAD	1	PASI-K
		EPA 365.4	CRS	1	PASI-K
		SM 4500-NH3 G	JLM	1	PASI-N
		SM 4500-NO3 F	JLM	1	PASI-N
		SM 5220D	MCT	1	PASI-N
2063624002	**Effluent - Grab**	SM 3500-Cr B	MCT	1	PASI-N
		EPA 9012	MCT	1	PASI-N

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

ANALYTICAL RESULTS

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Sample: Effluent - Composite **Lab ID: 2063624001** Collected: 10/19/17 08:00 Received: 10/19/17 11:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Aluminum	ND	ug/L	200	1	10/20/17 07:18	10/20/17 14:49	7429-90-5	
Antimony	ND	ug/L	60.0	1	10/20/17 07:18	10/20/17 14:49	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-38-2	
Barium	ND	ug/L	200	1	10/20/17 07:18	10/20/17 14:49	7440-39-3	
Beryllium	ND	ug/L	5.0	1	10/20/17 07:18	10/20/17 14:49	7440-41-7	
Cadmium	ND	ug/L	5.0	1	10/20/17 07:18	10/20/17 14:49	7440-43-9	
Calcium	**12800**	ug/L	1000	1	10/20/17 07:18	10/20/17 14:49	7440-70-2	
Chromium	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-47-3	
Cobalt	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-48-4	
Copper	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-50-8	
Iron	**78.7**	ug/L	50.0	1	10/20/17 07:18	10/20/17 14:49	7439-89-6	
Lead	ND	ug/L	5.0	1	10/20/17 07:18	10/20/17 14:49	7439-92-1	
Magnesium	**2970**	ug/L	1000	1	10/20/17 07:18	10/20/17 14:49	7439-95-4	
Manganese	**26.4**	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7439-96-5	
Nickel	ND	ug/L	40.0	1	10/20/17 07:18	10/20/17 14:49	7440-02-0	
Potassium	**10100**	ug/L	1000	1	10/20/17 07:18	10/20/17 14:49	7440-09-7	
Selenium	ND	ug/L	20.0	1	10/20/17 07:18	10/20/17 14:49	7782-49-2	
Silver	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-22-4	
Sodium	**39600**	ug/L	1000	1	10/20/17 07:18	10/20/17 14:49	7440-23-5	
Thallium	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-28-0	
Vanadium	ND	ug/L	50.0	1	10/20/17 07:18	10/20/17 14:49	7440-62-2	
Zinc	**73.2**	ug/L	20.0	1	10/20/17 07:18	10/20/17 14:49	7440-66-6	
5210B cBOD, 5 day	Analytical Method: SM 5210B Preparation Method: SM 5210B							
Carbonaceous BOD, 5 day	**2.0**	mg/L	2.0	1	10/20/17 09:55	10/25/17 13:20		
2540D Total Suspended Solids	Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	4.0	1		10/23/17 10:15		
9040 pH	Analytical Method: EPA 9040							
pH at 25 Degrees C	**7.1**	Std. Units	0.010	1		10/20/17 10:38		H3,H6
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**3.8**	mg/L	0.50	1		10/25/17 14:52	7727-37-9	
365.4 Total Phosphorus	Analytical Method: EPA 365.4							
Phosphorus	**0.42**	mg/L	0.10	1		10/26/17 14:43	7723-14-0	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G							
Nitrogen, Ammonia	**1.9**	mg/L	0.10	1		10/20/17 11:22	7664-41-7	
4500NO3-F, NO3-NO2	Analytical Method: SM 4500-NO3 F							
Nitrogen, NO2 plus NO3	**5.1**	mg/L	0.25	5		10/23/17 13:11		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

ANALYTICAL RESULTS

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Sample: Effluent - Composite **Lab ID: 2063624001** Collected: 10/19/17 08:00 Received: 10/19/17 11:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
5220D COD	Analytical Method: SM 5220D Preparation Method: SM 5220D							
Chemical Oxygen Demand	**20.0**	mg/L	5.0	1	10/20/17 09:33	10/20/17 12:51		

Sample: Effluent - Grab **Lab ID: 2063624002** Collected: 10/19/17 09:00 Received: 10/19/17 11:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent Preserved	Analytical Method: SM 3500-Cr B							
Chromium, Hexavalent	ND	mg/L	0.010	1		10/26/17 16:01	18540-29-9	
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9010							
Cyanide	ND	mg/L	0.010	1	10/24/17 09:30	10/28/17 10:28	57-12-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92422 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B cBOD, 5 day
Associated Lab Samples: 2063624001

METHOD BLANK: 397199 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Carbonaceous BOD, 5 day	mg/L	ND	2.0	10/25/17 13:20	

LABORATORY CONTROL SAMPLE: 397200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbonaceous BOD, 5 day	mg/L	198	186	94	85-115	

SAMPLE DUPLICATE: 397201

Parameter	Units	2063653001 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbonaceous BOD, 5 day	mg/L	157	158	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92345
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 2063624001

METHOD BLANK: 396895
Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	10/20/17 12:13	
Antimony	ug/L	ND	60.0	10/20/17 12:13	
Arsenic	ug/L	ND	10.0	10/20/17 12:13	
Barium	ug/L	ND	200	10/20/17 12:13	
Beryllium	ug/L	ND	5.0	10/20/17 12:13	
Cadmium	ug/L	ND	5.0	10/20/17 12:13	
Calcium	ug/L	ND	1000	10/20/17 12:13	
Chromium	ug/L	ND	10.0	10/20/17 12:13	
Cobalt	ug/L	ND	10.0	10/20/17 12:13	
Copper	ug/L	ND	10.0	10/20/17 12:13	
Iron	ug/L	ND	50.0	10/20/17 12:13	
Lead	ug/L	ND	5.0	10/20/17 12:13	
Magnesium	ug/L	ND	1000	10/20/17 12:13	
Manganese	ug/L	ND	10.0	10/20/17 12:13	
Nickel	ug/L	ND	40.0	10/20/17 12:13	
Potassium	ug/L	ND	1000	10/20/17 12:13	
Selenium	ug/L	ND	20.0	10/20/17 12:13	
Silver	ug/L	ND	10.0	10/20/17 12:13	
Sodium	ug/L	ND	1000	10/20/17 12:13	
Thallium	ug/L	ND	10.0	10/20/17 12:13	
Vanadium	ug/L	ND	50.0	10/20/17 12:13	
Zinc	ug/L	ND	20.0	10/20/17 12:13	

LABORATORY CONTROL SAMPLE: 396896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10400	104	85-115	
Antimony	ug/L	1000	1040	104	85-115	
Arsenic	ug/L	1000	1010	101	85-115	
Barium	ug/L	1000	1010	101	85-115	
Beryllium	ug/L	1000	1030	103	85-115	
Cadmium	ug/L	1000	1040	104	85-115	
Calcium	ug/L	10000	10600	106	85-115	
Chromium	ug/L	1000	1030	103	85-115	
Cobalt	ug/L	1000	1060	106	85-115	
Copper	ug/L	1000	1040	104	85-115	
Iron	ug/L	10000	10600	106	85-115	
Lead	ug/L	1000	1040	104	85-115	
Magnesium	ug/L	10000	9720	97	85-115	
Manganese	ug/L	1000	1050	105	85-115	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

LABORATORY CONTROL SAMPLE: 396896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nickel	ug/L	1000	1030	103	85-115	
Potassium	ug/L	10000	10100	101	85-115	
Selenium	ug/L	1000	1070	107	85-115	
Silver	ug/L	500	513	103	85-115	
Sodium	ug/L	10000	10300	103	85-115	
Thallium	ug/L	1000	982	98	85-115	
Vanadium	ug/L	1000	980	98	85-115	
Zinc	ug/L	1000	1050	105	85-115	

MATRIX SPIKE SAMPLE: 396898

Parameter	Units	2063644001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	ND	10000	10100	100	70-130	
Antimony	ug/L	ND	1000	989	99	70-130	
Arsenic	ug/L	ND	1000	958	96	70-130	
Barium	ug/L	ND	1000	987	94	70-130	
Beryllium	ug/L	ND	1000	993	99	70-130	
Cadmium	ug/L	ND	1000	969	97	70-130	
Calcium	ug/L	ND	10000	10800	102	70-130	
Chromium	ug/L	ND	1000	976	98	70-130	
Cobalt	ug/L	ND	1000	1010	101	70-130	
Copper	ug/L	ND	1000	993	99	70-130	
Iron	ug/L	ND	10000	10200	101	70-130	
Lead	ug/L	ND	1000	960	96	70-130	
Magnesium	ug/L	ND	10000	9100	91	70-130	
Manganese	ug/L	ND	1000	996	99	70-130	
Nickel	ug/L	ND	1000	954	95	70-130	
Potassium	ug/L	ND	10000	10200	97	70-130	
Selenium	ug/L	ND	1000	1020	102	70-130	
Silver	ug/L	ND	500	478	95	70-130	
Sodium	ug/L	149000	10000	159000	104	70-130	
Thallium	ug/L	ND	1000	876	88	70-130	
Vanadium	ug/L	ND	1000	949	95	70-130	
Zinc	ug/L	ND	1000	1000	99	70-130	

SAMPLE DUPLICATE: 396897

Parameter	Units	2063644001 Result	Dup Result	RPD	Max RPD	Qualifiers
Aluminum	ug/L	ND	ND		20	
Antimony	ug/L	ND	ND		20	
Arsenic	ug/L	ND	ND		20	
Barium	ug/L	ND	ND		20	
Beryllium	ug/L	ND	ND		20	
Cadmium	ug/L	ND	ND		20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

SAMPLE DUPLICATE: 396897

Parameter	Units	2063644001 Result	Dup Result	RPD	Max RPD	Qualifiers
Calcium	ug/L	ND	672J		20	
Chromium	ug/L	ND	ND		20	
Cobalt	ug/L	ND	ND		20	
Copper	ug/L	ND	ND		20	
Iron	ug/L	ND	ND		20	
Lead	ug/L	ND	2J		20	
Magnesium	ug/L	ND	ND		20	
Manganese	ug/L	ND	4.7J		20	
Nickel	ug/L	ND	ND		20	
Potassium	ug/L	ND	485J		20	
Selenium	ug/L	ND	ND		20	
Silver	ug/L	ND	ND		20	
Sodium	ug/L	149000	150000	1	20	
Thallium	ug/L	ND	ND		20	
Vanadium	ug/L	ND	ND		20	
Zinc	ug/L	ND	9J		20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92550 Analysis Method: SM 2540D
QC Batch Method: SM 2540D Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 2063624001

METHOD BLANK: 397867 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	4.0	10/23/17 10:09	

LABORATORY CONTROL SAMPLE: 397868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	89.0	89	80-120	

SAMPLE DUPLICATE: 397869

Parameter	Units	2063740001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 397870

Parameter	Units	2063641005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92386
QC Batch Method: EPA 9040
Analysis Method: EPA 9040
Analysis Description: 9040 pH
Associated Lab Samples: 2063624001

LABORATORY CONTROL SAMPLE: 397097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	6	6.0	100	97-103	H6

SAMPLE DUPLICATE: 397098

Parameter	Units	2063624001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	20	H3,H6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92904 Analysis Method: SM 3500-Cr B
QC Batch Method: SM 3500-Cr B Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 2063624002

METHOD BLANK: 399475 Matrix: Water
Associated Lab Samples: 2063624002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	ND	0.010	10/26/17 15:56	

LABORATORY CONTROL SAMPLE: 399476

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.2	0.21	104	90-110	

MATRIX SPIKE SAMPLE: 399478

Parameter	Units	2063586002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	ND	.25	ND	0	75-125	M1

SAMPLE DUPLICATE: 399477

Parameter	Units	2063586002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/L	ND	ND		20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 500147
QC Batch Method: EPA 351.2
Associated Lab Samples: 2063624001

Analysis Method: EPA 351.2
Analysis Description: 351.2 TKN

METHOD BLANK: 2046880 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	0.50	10/25/17 14:44	

LABORATORY CONTROL SAMPLE: 2046881

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	5.0	99	90-110	

MATRIX SPIKE SAMPLE: 2046882

Parameter	Units	60256027004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	2.4	5	8.5	123	90-110	M1

SAMPLE DUPLICATE: 2046883

Parameter	Units	60256048001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	3.0	3.0	2	10	

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REPORT OF LABORATORY ANALYSIS

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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 500152 Analysis Method: EPA 365.4
QC Batch Method: EPA 365.4 Analysis Description: 365.4 Phosphorus
Associated Lab Samples: 2063624001

METHOD BLANK: 2046902 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.10	10/26/17 14:32	

LABORATORY CONTROL SAMPLE: 2046903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	2	2.0	98	90-110	

MATRIX SPIKE SAMPLE: 2046904

Parameter	Units	60256277001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	ND	2	2.0	96	90-110	

MATRIX SPIKE SAMPLE: 2046906

Parameter	Units	60256154008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	ND	2	2.0	96	90-110	

SAMPLE DUPLICATE: 2046905

Parameter	Units	2063624001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	0.42	0.43	2	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92375
QC Batch Method: SM 4500-NH3 G
Analysis Method: SM 4500-NH3 G
Analysis Description: 4500 Ammonia
Associated Lab Samples: 2063624001

METHOD BLANK: 397023
Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	10/20/17 10:59	

LABORATORY CONTROL SAMPLE: 397024

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1.5	1.5	103	90-110	

MATRIX SPIKE SAMPLE: 397026

Parameter	Units	2063547002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	2.6	10	12.3	97	75-125	

SAMPLE DUPLICATE: 397025

Parameter	Units	2063547002 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	2.6	2.6	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92533 Analysis Method: SM 4500-NO3 F
QC Batch Method: SM 4500-NO3 F Analysis Description: SM4500NO3-F, Nitrate, Preserved
Associated Lab Samples: 2063624001

METHOD BLANK: 397809 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.050	10/23/17 13:10	

LABORATORY CONTROL SAMPLE: 397810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	1.5	1.6	103	90-110	

MATRIX SPIKE SAMPLE: 397812

Parameter	Units	2063526001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.36	1	1.3	96	80-120	

SAMPLE DUPLICATE: 397811

Parameter	Units	2063526001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.36	0.36	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92379
QC Batch Method: SM 5220D
Associated Lab Samples: 2063624001

Analysis Method: SM 5220D
Analysis Description: 5220D COD

METHOD BLANK: 397054 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	5.0	10/20/17 12:50	

METHOD BLANK: 397056 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	5.0	10/20/17 12:50	

LABORATORY CONTROL SAMPLE: 397055

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	100	101	101	90-110	

LABORATORY CONTROL SAMPLE: 397057

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	100	99.0	99	90-110	

MATRIX SPIKE SAMPLE: 397059

Parameter	Units	2063623001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	640	1000	1670	103	75-125	

SAMPLE DUPLICATE: 397058

Parameter	Units	2063623001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	640	640	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92638 Analysis Method: EPA 9012
QC Batch Method: EPA 9010 Analysis Description: EPA 9012 Cyanide
Associated Lab Samples: 2063624002

METHOD BLANK: 398163 Matrix: Water
Associated Lab Samples: 2063624002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.010	10/28/17 10:28	

LABORATORY CONTROL SAMPLE: 398164

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	105	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALIFIERS

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

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

J - Estimated concentration above the adjusted method detection limit and below the 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-K	Pace Analytical Services - Kansas City
PASI-MO	Pace Analytical Services - Mobile Labs
PASI-N	Pace Analytical Services - New Orleans

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2063624001	**Effluent - Composite**	EPA 200.7	92345	EPA 200.7	92355
2063624001	**Effluent - Composite**	SM 5210B	92422	SM 5210B	92423
2063624001	**Effluent - Composite**	SM 2540D	92550		
2063624001	**Effluent - Composite**	EPA 9040	92386		
2063624002	**Effluent - Grab**	SM 3500-Cr B	92904		
2063624001	**Effluent - Composite**	EPA 351.2	500147		
2063624001	**Effluent - Composite**	EPA 365.4	500152		
2063624001	**Effluent - Composite**	SM 4500-NH3 G	92375		
2063624001	**Effluent - Composite**	SM 4500-NO3 F	92533		
2063624001	**Effluent - Composite**	SM 5220D	92379	SM 5220D	92441
2063624002	**Effluent - Grab**	EPA 9010	92638	EPA 9012	92725

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10/19

Page: of

2186831

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: BCSS	Report To: DAVID FLECK	Attention:
Address:	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: BCSS-Spanish Fort	Pace Project Manager:
Requested Due Date/TAT:	Project Number: ADEM Split	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER

Site Location STATE:

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: Metals	BOD	NH_3/TKN	TSS	T. Phos	Nitrate/Nitrite	COD	pH	Cl2	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Eff - Composite	WW	C	10/18	900	10/19	800	3	2										X	X	X	X	X	X	X	X			
2									8																				
3	Eff - Grab	WW	G	10/18	900	10/19	900	3	2																		X	X	
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

Bellotart School

WO# : 2063624

2063624

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		10/19	1100		10-19-17	1100				
	10/19-17		1625		10/19/17	1625				
	Greyhound	10-20-17	0700	Pace	10-20-17	0700	1-0	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: DAVID FLECK

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/19/17

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical
www.pacelabs.com

Sample Condition Upon Receipt

WO#: 2063624
PM: MKB Due Date: 10/31/17
CLIENT: MO-BCSS

Client Name: BCSS

Courier: FedEx ☐ UPS ☐ Pace ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☐ No ☑ Seals intact: Yes ☐ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☐

Thermometer Used: IR-001 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** _____ **Corr. Factor** _____ **Corrected** _____

Date and initials of person examining contents:

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☑Yes ☐No ☐N/A	cBOD, CrVI, pH
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix:	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☑Yes ☐No ☐N/A	
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

TestAmerica Job ID: 400-137100-1
Client Project/Site: 17D0424-BSF

For:
Envirochem Laboratories
4320 Midmost Drive
Mobile, Alabama 36609

Attn: Jenny Wheat

Mark Swafford

Authorized for release by:
5/4/2017 4:19:14 PM

Mark Swafford, Project Manager I
(850)471-6207
mark.swafford@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Envirochem Laboratories
Project/Site: 17D0424-BSF

TestAmerica Job ID: 400-137100-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137100-1	BLANK	Water	04/24/17 07:54	04/27/17 09:25
400-137100-2	SAMPLE	Water	04/24/17 08:05	04/27/17 09:25

Client Sample Results

Client: Envirochem Laboratories
Project/Site: 17D0424-BSF

TestAmerica Job ID: 400-137100-1

Client Sample ID: BLANK
Date Collected: 04/24/17 07:54
Date Received: 04/27/17 09:25

Lab Sample ID: 400-137100-1
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00050	0.00020	ug/L		05/02/17 13:35	05/04/17 14:03	1

Client Sample Results

Client: Envirochem Laboratories
Project/Site: 17D0424-BSF

TestAmerica Job ID: 400-137100-1

Client Sample ID: SAMPLE
Date Collected: 04/24/17 08:05
Date Received: 04/27/17 09:25

Lab Sample ID: 400-137100-2
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0021		0.00050	0.00020	ug/L		05/02/17 13:35	05/04/17 13:55	1

Lab Chronicle

Client: Envirochem Laboratories
Project/Site: 17D0424-BSF

TestAmerica Job ID: 400-137100-1

Client Sample ID: BLANK

Lab Sample ID: 400-137100-1

Date Collected: 04/24/17 07:54
Matrix: Water
Date Received: 04/27/17 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			352280	05/02/17 13:35	VLC	TAL PEN
Total/NA	Analysis	1631E		1	352388	05/04/17 14:03	VLC	TAL PEN

Client Sample ID: SAMPLE

Lab Sample ID: 400-137100-2

Date Collected: 04/24/17 08:05
Matrix: Water
Date Received: 04/27/17 09:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			352280	05/02/17 13:35	VLC	TAL PEN
Total/NA	Analysis	1631E		1	352388	05/04/17 13:55	VLC	TAL PEN

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: Envirochem Laboratories
Project/Site: 17D0424-BSF

TestAmerica Job ID: 400-137100-1

Laboratory: TestAmerica Pensacola

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
1631E	1631E	Water	Mercury

Method Summary

Client: Envirochem Laboratories
Project/Site: 17D0424-BSF

TestAmerica Job ID: 400-137100-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

SERIAL NUMBER: 75

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001
Fax: 850-478-2671
Website: www.testameri

400-137100 COC

QUOTE NO	BOTTLE ORDER NO.	ORDER - L
		C

CLIENT	ADDRESS	PAGE	OF
Enviro Chem, Inc.	4320 Midmost Dr. Mobile, AL 36609		

PROJECT NAME	PROJECT NO	CLIENT PROJECT MANAGER	PROJECT LOC. (STATE)
17D0424-BSF	17D0424	Jenny Wheat	AL

SAMPLED BY	CONTRACT / P.O. NO.

CLIENT PHONE	CLIENT E-MAIL OR FAX
251-344-9106	jwheat@pcilabs.com

TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL NORMAL 10 BUSINESS DAYS
1 DAY 2 DAYS 3 DAYS 5 DAYS 20 DAYS (Package) OTHER

SAMPLE DISPOSAL: RETURN TO CLIENT DISPOSAL BY LAB
SEE CONTRACT OTHER:

REQUESTED ANALYSIS

POSSIBLE HAZARD IDENTIFICATION
- NON-HAZARD
- FLAMMABLE
- RADIOACTIVE
- POISON B
- UNKNOWN
- OTHER:

NO. OF COOLERS PER SHIPMENT:

LAB USE ONLY - SAMPLE NUMBER

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	PRESERVATIVE: No Preservative	HCL - Hydrochloric Acid	HNO3 - Nitric Acid	H2SO4 - Sulfuric Acid or H3PO4	NAOH - Sodium Hydroxide	CH3OH - Methanol	NAHSO4 - Sodium Bisulfate	NA2S2O3 - Sodium Thiosulfate	Other	MATRIX: Drinking Water	Aqueous GW, SW, WW	Solid, Semisolid, Sediment	Air	NonAqueous (Oil, Solvent, etc.)	NUMBER OF CONTAINERS SUBMITTED	SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT
4-24-17	754	BLANK															3	
4-24-17	805	SAMPLE															5	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	4-24-17	1620	[signature]	4/27/17	630	[signature]	4-27-17	925
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
[signature]	4/24/17	1620	[signature]	4-27-17	630	Julia Tremphrau	4/27/17	925

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	CUSTODY INTACT?	CUSTODY SEAL NO.	REMARKS
			YES NO	400-137100	21.0°C #5592 NO ICE

TAL-8251 (1207)

Login Sample Receipt Checklist

Client: Envirochem Laboratories

Job Number: 400-137100-1

Login Number: 137100
List Number: 1
Creator: Phan, Julia D

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	21.0°C # 5592
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

EnviroChem, Inc.
Environmental Laboratories

INVOICE

Invoice Number
1705155

PO Number

Sample(s) Received
04/24/17

Remit To:
Accounts Receivable
EnviroChem, Inc.
4320 Midmost Drive
Mobile, AL 36609
(251) 344-9106

Project Number
4/24/17

Invoice To:
BCSS
PO Box 1628
Foley, AL 36536

Attention: David Flesch

Invoiced On:
05/06/17

Terms
NET 30

Project
Spanish Fort - Low Level Mercury

Work Order(s)
17D0424

Quantity	Analysis/Description	Matrix	Department	Unit Cost	Extended Cost
2	(SUB16) Low Level Mercury	Water	SUB	$150.00	$300.00
1	(SUB) Shipping and Handling	Water	SUB	$50.00	$50.00
Additional Items					
1	Disposable Bailers			$7.00	$7.00
2	Man Hours (Environmental Technician)			$65.00	$130.00
27	Mileage			$0.57	$15.39

Invoice Total: **$502.39**

Comments:

CHAIN OF CUSTODY FORM

Energy Technical Services, LLC
Northport Office - 14176 Highway 69 N, Northport, AL 35473 205 330-7994
Mobile Office - 1801 15th St., Suite D, Mobile, AL 36615 251 436-8880
www.energytechsvc.com Fax 866 594-8920

ETS ID # 140519P001

Client: Baldwin County Sewer Services	Sampled By: ETS
Contact: Mr. Dave Flesch	Turnaround: Routine X Rush By:
Phone: 251 747-2977	*Compositor Start: Date Time
Address: 12480 Highway 90	*Compositor End: Date Time
City, State: Spanish Fort, AL	Comments:

Project: Spanish Fort 2A Permit Renewal

Sample ID	Sample Date	Sample Time	Sample Method: Comp*	Sample Method: Grab			Preservation*	# of Containers	C-BOD, TSS, NO2, TDS	NH3, TKN, NO3, PO4	E. coli	O&G	Metals, Hardness	CN	Phenol	624 (& Trip Blk)	625	Field - pH, DO, Cl2, Temp
							Ice	P-1	H2SO4	P-1	Na Thio	P-2	H2SO4	G-1	HNO3	P-1	NaOH	P-1	H2SO4	G-1	Ice	G-3(1)	Ice	G-2	
Effluent	5/19	0635	X						X	X			X						X					
Effluent	5/19	0900		X							X	X		X	X	X		X						

*Preservation Types: Ice, H2SO4, HNO3, HCl, NaOH, NaThio, Other, None

Container: Glass, Plastic

Relinquished by: [signature] Date/Time: 5/19/14 1520
Received by: [signature] Date/Time: 5.19.14 1500

Relinquished by: [signature] Date/Time: 5.19.14 1620
Received by: [signature] Date/Time: 5.19.14 1620

Relinquished by: Sign Date/Time:
Received by: Sign Date/Time:

Was Shipped Container intact when received? Yes No
Were samples properly preserved? Yes No
Shipper Tracking Number: ETS sampled

Seals Intact: Yes No Initials:
Sample Temp: ISE deg C Initials:

Comments: Field pH: s.u.
Flow:

Page 1 of 1

COC Revised 06-13

ETS pH Calibration Sheet

Date/Time: 5-19-14 TLC 0740

Analyst: TLC

pH Meter: Make HACH Model HQ40d Serial 5828700

pH Probe: Make HACH Model PHC 101 Serial N/A

Buffer	Lot #	Expiration Date	mv	pH
7 HACH	A4057	2-16	-25.2	7.01
4 HACH	A4045	2-16	146.2	4.00
10 HACH	A4052	2-15	-192.7	10.03

Slope: -56.73 (96%) 6.85 STANDARD 6.86 +/- .002

4.03 1528 - Time

Sample(s):

ID	Time	pH	
Spanish Fort 2A	0930	6.29	23.7°C

ETS DO Calibration Sheet

Date/Time: 5-19-14 0743

Analyst: TLC

DO Meter: Make HACH Model HQ 40d Serial 5828700

DO Probe: Make HACH Model LDO101 Serial N/A

mg/L In BOD Bottle (7.22 – 9.23)	% Saturation in BOD Bottle
9.05	101.9%

Sample(s):

ID	Time	DO, mg/L
Spanish Fort 2A	0930	8.01
Lillian 2A	1045	12.20
Upstream	1248	6.86
Downstream	1302 BB	7.09
DOC	1302	7.12

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

October 30, 2017

David Flesch
BCSS
P.O. Box 1628
Foley, AL 36536

RE: Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Dear David Flesch:
Enclosed are the analytical results for sample(s) received by the laboratory on October 19, 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,

MK Brenner

Mary Kathryn Brenner
marykathryn.brenner@pacelabs.com
251-344-9106
Project Manager

Enclosures

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

CERTIFICATIONS

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch: 11277CA
Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 0025721
Kansas Department of Health and Environment (NELAC): E-10266
Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006
Pennsylvania Dept. of Env Protection (NELAC): 68-04202
Texas Commission on Env. Quality (NELAC): T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-00119
Commonwealth of Virginia (TNI): 480246

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 17-016-0
Illinois Certification #: 200030
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212018-1
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021
Kansas Field Laboratory Accreditation: # E-92587
Missouri Certification: 10070

Mobile Certification IDs

4320 Midmost Drive, Mobile, AL 36609
Alabama Certification #: 40810
Florida Certification #: E87977

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

SAMPLE SUMMARY

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2063624001	**Effluent - Composite**	Water	10/19/17 08:00	10/19/17 11:03
2063624002	**Effluent - Grab**	Water	10/19/17 09:00	10/19/17 11:03

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

SAMPLE ANALYTE COUNT

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2063624001	**Effluent - Composite**	EPA 200.7	MHB1	22	PASI-N
		SM 5210B	TGH	1	PASI-MO
		SM 2540D	KWS	1	PASI-N
		EPA 9040	MCT	1	PASI-N
		EPA 351.2	RAD	1	PASI-K
		EPA 365.4	CRS	1	PASI-K
		SM 4500-NH3 G	JLM	1	PASI-N
		SM 4500-NO3 F	JLM	1	PASI-N
		SM 5220D	MCT	1	PASI-N
2063624002	**Effluent - Grab**	SM 3500-Cr B	MCT	1	PASI-N
		EPA 9012	MCT	1	PASI-N

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

ANALYTICAL RESULTS

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Sample: Effluent - Composite **Lab ID: 2063624001** Collected: 10/19/17 08:00 Received: 10/19/17 11:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Aluminum	ND	ug/L	200	1	10/20/17 07:18	10/20/17 14:49	7429-90-5	
Antimony	ND	ug/L	60.0	1	10/20/17 07:18	10/20/17 14:49	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-38-2	
Barium	ND	ug/L	200	1	10/20/17 07:18	10/20/17 14:49	7440-39-3	
Beryllium	ND	ug/L	5.0	1	10/20/17 07:18	10/20/17 14:49	7440-41-7	
Cadmium	ND	ug/L	5.0	1	10/20/17 07:18	10/20/17 14:49	7440-43-9	
Calcium	**12800**	ug/L	1000	1	10/20/17 07:18	10/20/17 14:49	7440-70-2	
Chromium	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-47-3	
Cobalt	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-48-4	
Copper	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-50-8	
Iron	**78.7**	ug/L	50.0	1	10/20/17 07:18	10/20/17 14:49	7439-89-6	
Lead	ND	ug/L	5.0	1	10/20/17 07:18	10/20/17 14:49	7439-92-1	
Magnesium	**2970**	ug/L	1000	1	10/20/17 07:18	10/20/17 14:49	7439-95-4	
Manganese	**26.4**	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7439-96-5	
Nickel	ND	ug/L	40.0	1	10/20/17 07:18	10/20/17 14:49	7440-02-0	
Potassium	**10100**	ug/L	1000	1	10/20/17 07:18	10/20/17 14:49	7440-09-7	
Selenium	ND	ug/L	20.0	1	10/20/17 07:18	10/20/17 14:49	7782-49-2	
Silver	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-22-4	
Sodium	**39600**	ug/L	1000	1	10/20/17 07:18	10/20/17 14:49	7440-23-5	
Thallium	ND	ug/L	10.0	1	10/20/17 07:18	10/20/17 14:49	7440-28-0	
Vanadium	ND	ug/L	50.0	1	10/20/17 07:18	10/20/17 14:49	7440-62-2	
Zinc	**73.2**	ug/L	20.0	1	10/20/17 07:18	10/20/17 14:49	7440-66-6	
5210B cBOD, 5 day	Analytical Method: SM 5210B Preparation Method: SM 5210B							
Carbonaceous BOD, 5 day	**2.0**	mg/L	2.0	1	10/20/17 09:55	10/25/17 13:20		
2540D Total Suspended Solids	Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	4.0	1		10/23/17 10:15		
9040 pH	Analytical Method: EPA 9040							
pH at 25 Degrees C	**7.1**	Std. Units	0.010	1		10/20/17 10:38		H3,H6
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	**3.8**	mg/L	0.50	1		10/25/17 14:52	7727-37-9	
365.4 Total Phosphorus	Analytical Method: EPA 365.4							
Phosphorus	**0.42**	mg/L	0.10	1		10/26/17 14:43	7723-14-0	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G							
Nitrogen, Ammonia	**1.9**	mg/L	0.10	1		10/20/17 11:22	7664-41-7	
4500NO3-F, NO3-NO2	Analytical Method: SM 4500-NO3 F							
Nitrogen, NO2 plus NO3	**5.1**	mg/L	0.25	5		10/23/17 13:11		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

ANALYTICAL RESULTS

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Sample: Effluent - Composite **Lab ID: 2063624001** Collected: 10/19/17 08:00 Received: 10/19/17 11:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
5220D COD	Analytical Method: SM 5220D Preparation Method: SM 5220D							
Chemical Oxygen Demand	**20.0**	mg/L	5.0	1	10/20/17 09:33	10/20/17 12:51		

Sample: Effluent - Grab **Lab ID: 2063624002** Collected: 10/19/17 09:00 Received: 10/19/17 11:03 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Chromium, Hexavalent Preserved	Analytical Method: SM 3500-Cr B							
Chromium, Hexavalent	ND	mg/L	0.010	1		10/26/17 16:01	18540-29-9	
9012 Cyanide, Total	Analytical Method: EPA 9012 Preparation Method: EPA 9010							
Cyanide	ND	mg/L	0.010	1	10/24/17 09:30	10/28/17 10:28	57-12-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Mobile, AL 336609
251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92422 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B cBOD, 5 day
Associated Lab Samples: 2063624001

METHOD BLANK: 397199 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Carbonaceous BOD, 5 day	mg/L	ND	2.0	10/25/17 13:20	

LABORATORY CONTROL SAMPLE: 397200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbonaceous BOD, 5 day	mg/L	198	186	94	85-115	

SAMPLE DUPLICATE: 397201

Parameter	Units	2063653001 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbonaceous BOD, 5 day	mg/L	157	158	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92345
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 2063624001

METHOD BLANK: 396895
Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	200	10/20/17 12:13	
Antimony	ug/L	ND	60.0	10/20/17 12:13	
Arsenic	ug/L	ND	10.0	10/20/17 12:13	
Barium	ug/L	ND	200	10/20/17 12:13	
Beryllium	ug/L	ND	5.0	10/20/17 12:13	
Cadmium	ug/L	ND	5.0	10/20/17 12:13	
Calcium	ug/L	ND	1000	10/20/17 12:13	
Chromium	ug/L	ND	10.0	10/20/17 12:13	
Cobalt	ug/L	ND	10.0	10/20/17 12:13	
Copper	ug/L	ND	10.0	10/20/17 12:13	
Iron	ug/L	ND	50.0	10/20/17 12:13	
Lead	ug/L	ND	5.0	10/20/17 12:13	
Magnesium	ug/L	ND	1000	10/20/17 12:13	
Manganese	ug/L	ND	10.0	10/20/17 12:13	
Nickel	ug/L	ND	40.0	10/20/17 12:13	
Potassium	ug/L	ND	1000	10/20/17 12:13	
Selenium	ug/L	ND	20.0	10/20/17 12:13	
Silver	ug/L	ND	10.0	10/20/17 12:13	
Sodium	ug/L	ND	1000	10/20/17 12:13	
Thallium	ug/L	ND	10.0	10/20/17 12:13	
Vanadium	ug/L	ND	50.0	10/20/17 12:13	
Zinc	ug/L	ND	20.0	10/20/17 12:13	

LABORATORY CONTROL SAMPLE: 396896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	10000	10400	104	85-115	
Antimony	ug/L	1000	1040	104	85-115	
Arsenic	ug/L	1000	1010	101	85-115	
Barium	ug/L	1000	1010	101	85-115	
Beryllium	ug/L	1000	1030	103	85-115	
Cadmium	ug/L	1000	1040	104	85-115	
Calcium	ug/L	10000	10600	106	85-115	
Chromium	ug/L	1000	1030	103	85-115	
Cobalt	ug/L	1000	1060	106	85-115	
Copper	ug/L	1000	1040	104	85-115	
Iron	ug/L	10000	10600	106	85-115	
Lead	ug/L	1000	1040	104	85-115	
Magnesium	ug/L	10000	9720	97	85-115	
Manganese	ug/L	1000	1050	105	85-115	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

LABORATORY CONTROL SAMPLE: 396896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nickel	ug/L	1000	1030	103	85-115	
Potassium	ug/L	10000	10100	101	85-115	
Selenium	ug/L	1000	1070	107	85-115	
Silver	ug/L	500	513	103	85-115	
Sodium	ug/L	10000	10300	103	85-115	
Thallium	ug/L	1000	982	98	85-115	
Vanadium	ug/L	1000	980	98	85-115	
Zinc	ug/L	1000	1050	105	85-115	

MATRIX SPIKE SAMPLE: 396898

Parameter	Units	2063644001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	ND	10000	10100	100	70-130	
Antimony	ug/L	ND	1000	989	99	70-130	
Arsenic	ug/L	ND	1000	958	96	70-130	
Barium	ug/L	ND	1000	987	94	70-130	
Beryllium	ug/L	ND	1000	993	99	70-130	
Cadmium	ug/L	ND	1000	969	97	70-130	
Calcium	ug/L	ND	10000	10800	102	70-130	
Chromium	ug/L	ND	1000	976	98	70-130	
Cobalt	ug/L	ND	1000	1010	101	70-130	
Copper	ug/L	ND	1000	993	99	70-130	
Iron	ug/L	ND	10000	10200	101	70-130	
Lead	ug/L	ND	1000	960	96	70-130	
Magnesium	ug/L	ND	10000	9100	91	70-130	
Manganese	ug/L	ND	1000	996	99	70-130	
Nickel	ug/L	ND	1000	954	95	70-130	
Potassium	ug/L	ND	10000	10200	97	70-130	
Selenium	ug/L	ND	1000	1020	102	70-130	
Silver	ug/L	ND	500	478	95	70-130	
Sodium	ug/L	149000	10000	159000	104	70-130	
Thallium	ug/L	ND	1000	876	88	70-130	
Vanadium	ug/L	ND	1000	949	95	70-130	
Zinc	ug/L	ND	1000	1000	99	70-130	

SAMPLE DUPLICATE: 396897

Parameter	Units	2063644001 Result	Dup Result	RPD	Max RPD	Qualifiers
Aluminum	ug/L	ND	ND		20	
Antimony	ug/L	ND	ND		20	
Arsenic	ug/L	ND	ND		20	
Barium	ug/L	ND	ND		20	
Beryllium	ug/L	ND	ND		20	
Cadmium	ug/L	ND	ND		20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

SAMPLE DUPLICATE: 396897

Parameter	Units	2063644001 Result	Dup Result	RPD	Max RPD	Qualifiers
Calcium	ug/L	ND	672J		20	
Chromium	ug/L	ND	ND		20	
Cobalt	ug/L	ND	ND		20	
Copper	ug/L	ND	ND		20	
Iron	ug/L	ND	ND		20	
Lead	ug/L	ND	2J		20	
Magnesium	ug/L	ND	ND		20	
Manganese	ug/L	ND	4.7J		20	
Nickel	ug/L	ND	ND		20	
Potassium	ug/L	ND	485J		20	
Selenium	ug/L	ND	ND		20	
Silver	ug/L	ND	ND		20	
Sodium	ug/L	149000	150000	1	20	
Thallium	ug/L	ND	ND		20	
Vanadium	ug/L	ND	ND		20	
Zinc	ug/L	ND	9J		20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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251-344-9106

QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92550 Analysis Method: SM 2540D
QC Batch Method: SM 2540D Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 2063624001

METHOD BLANK: 397867 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	4.0	10/23/17 10:09	

LABORATORY CONTROL SAMPLE: 397868

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	89.0	89	80-120	

SAMPLE DUPLICATE: 397869

Parameter	Units	2063740001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 397870

Parameter	Units	2063641005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92386
QC Batch Method: EPA 9040
Analysis Method: EPA 9040
Analysis Description: 9040 pH
Associated Lab Samples: 2063624001

LABORATORY CONTROL SAMPLE: 397097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
pH at 25 Degrees C	Std. Units	6	6.0	100	97-103	H6

SAMPLE DUPLICATE: 397098

Parameter	Units	2063624001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	7.1	7.1	0	20	H3,H6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92904 Analysis Method: SM 3500-Cr B
QC Batch Method: SM 3500-Cr B Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 2063624002

METHOD BLANK: 399475 Matrix: Water
Associated Lab Samples: 2063624002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	ND	0.010	10/26/17 15:56	

LABORATORY CONTROL SAMPLE: 399476

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.2	0.21	104	90-110	

MATRIX SPIKE SAMPLE: 399478

Parameter	Units	2063586002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	ND	.25	ND	0	75-125	M1

SAMPLE DUPLICATE: 399477

Parameter	Units	2063586002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/L	ND	ND		20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 500147 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 2063624001

METHOD BLANK: 2046880 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	0.50	10/25/17 14:44	

LABORATORY CONTROL SAMPLE: 2046881

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	5	5.0	99	90-110	

MATRIX SPIKE SAMPLE: 2046882

Parameter	Units	60256027004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	2.4	5	8.5	123	90-110	M1

SAMPLE DUPLICATE: 2046883

Parameter	Units	60256048001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	3.0	3.0	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 500152
QC Batch Method: EPA 365.4
Analysis Method: EPA 365.4
Analysis Description: 365.4 Phosphorus
Associated Lab Samples: 2063624001

METHOD BLANK: 2046902 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.10	10/26/17 14:32	

LABORATORY CONTROL SAMPLE: 2046903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	2	2.0	98	90-110	

MATRIX SPIKE SAMPLE: 2046904

Parameter	Units	60256277001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	ND	2	2.0	96	90-110	

MATRIX SPIKE SAMPLE: 2046906

Parameter	Units	60256154008 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	ND	2	2.0	96	90-110	

SAMPLE DUPLICATE: 2046905

Parameter	Units	2063624001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	0.42	0.43	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92375 Analysis Method: SM 4500-NH3 G
QC Batch Method: SM 4500-NH3 G Analysis Description: 4500 Ammonia
Associated Lab Samples: 2063624001

METHOD BLANK: 397023 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	10/20/17 10:59	

LABORATORY CONTROL SAMPLE: 397024

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1.5	1.5	103	90-110	

MATRIX SPIKE SAMPLE: 397026

Parameter	Units	2063547002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	2.6	10	12.3	97	75-125	

SAMPLE DUPLICATE: 397025

Parameter	Units	2063547002 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	2.6	2.6	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
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QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92533
QC Batch Method: SM 4500-NO3 F
Analysis Method: SM 4500-NO3 F
Analysis Description: SM4500NO3-F, Nitrate, Preserved
Associated Lab Samples: 2063624001

METHOD BLANK: 397809
Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.050	10/23/17 13:10	

LABORATORY CONTROL SAMPLE: 397810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	1.5	1.6	103	90-110	

MATRIX SPIKE SAMPLE: 397812

Parameter	Units	2063526001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.36	1	1.3	96	80-120	

SAMPLE DUPLICATE: 397811

Parameter	Units	2063526001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	0.36	0.36	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92379 Analysis Method: SM 5220D
QC Batch Method: SM 5220D Analysis Description: 5220D COD
Associated Lab Samples: 2063624001

METHOD BLANK: 397054 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	5.0	10/20/17 12:50	

METHOD BLANK: 397056 Matrix: Water
Associated Lab Samples: 2063624001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	5.0	10/20/17 12:50	

LABORATORY CONTROL SAMPLE: 397055

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	100	101	101	90-110	

LABORATORY CONTROL SAMPLE: 397057

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	100	99.0	99	90-110	

MATRIX SPIKE SAMPLE: 397059

Parameter	Units	2063623001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	640	1000	1670	103	75-125	

SAMPLE DUPLICATE: 397058

Parameter	Units	2063623001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	640	640	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

QC Batch: 92638
QC Batch Method: EPA 9010
Analysis Method: EPA 9012
Analysis Description: EPA 9012 Cyanide
Associated Lab Samples: 2063624002

METHOD BLANK: 398163
Matrix: Water
Associated Lab Samples: 2063624002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.010	10/28/17 10:28	

LABORATORY CONTROL SAMPLE: 398164

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	105	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
251-344-9106

QUALIFIERS

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

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

J - Estimated concentration above the adjusted method detection limit and below the 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-K	Pace Analytical Services - Kansas City
PASI-MO	Pace Analytical Services - Mobile Labs
PASI-N	Pace Analytical Services - New Orleans

ANALYTE QUALIFIERS

H3	Sample was received or analysis requested beyond the recognized method holding time.
H6	Analysis initiated outside of the 15 minute EPA required holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
4320 Midmost Dr
Mobile, AL 336609
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Priority Pollutants 10/19/17
Pace Project No.: 2063624

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2063624001	**Effluent - Composite**	EPA 200.7	92345	EPA 200.7	92355
2063624001	**Effluent - Composite**	SM 5210B	92422	SM 5210B	92423
2063624001	**Effluent - Composite**	SM 2540D	92550		
2063624001	**Effluent - Composite**	EPA 9040	92386		
2063624002	**Effluent - Grab**	SM 3500-Cr B	92904		
2063624001	**Effluent - Composite**	EPA 351.2	500147		
2063624001	**Effluent - Composite**	EPA 365.4	500152		
2063624001	**Effluent - Composite**	SM 4500-NH3 G	92375		
2063624001	**Effluent - Composite**	SM 4500-NO3 F	92533		
2063624001	**Effluent - Composite**	SM 5220D	92379	SM 5220D	92441
2063624002	**Effluent - Grab**	EPA 9010	92638	EPA 9012	92725

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

10/19

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Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: BCSS	Report To: DAVID FLESCH	Attention:
Address:	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: BCSS-Spanish Fort	Pace Project Manager:
Requested Due Date/TAT:	Project Number: ADEM Split	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER

Site Location STATE:

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Matrix Codes MATRIX / CODE

Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: Metals	BOD	NH_3/TKN	TSS	T. Phos	Nitrate/Nitrite	COD	pH	Cr+6	CN	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Eff - Composite	WW	C	10/18	900	10/19	800	3	2										X	X	X	X	X	X	X	X		
2									8																			
3	Eff - Grab	WW	G	10/18	900	10/19	900	3	2																	X	X	
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Bellotant Schl

WO# : 2063624

2063624

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		10/19	1100		10-19-17	1180				
	10/19-17		1625		10/19/17	1625				
	Greyhound	10-20-17	0700	Pace	10-20-17	0700	1-0	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: DAVID FLESCH

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 10/19/17

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical®
www.pacelabs.com

Sample Condition Upon Receipt

WO#: 2063624
PM: MKB Due Date: 10/31/17
CLIENT: MO-BCSS

Client Name: BCSS

Courier: FedEx ☐ UPS ☐ Pace ☑ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☐ No ☑ Seals intact: Yes ☐ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☑ Other ☐

Thermometer Used: IR-001 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** _____ **Corr. Factor** _____ **Corrected** _____

Date and initials of person examining contents:

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☑Yes ☐No ☐N/A	cBOD, Cr VI, pH
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix:	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☑Yes ☐No ☐N/A	
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☐Yes ☐No ☑N/A	
Headspace in VOA vials (>6mm):	☐Yes ☐No ☑N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

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
JAN 07 2019
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: Spanish Fort Sewer WWTP

   a. Operator Name: David Flesch

   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.
   Baldwin County Sewer Service, LLC; 14747 UNDERWOOD ROAD, SUMMERDALE, AL 36580
   Chief Operator responsible for facility operations as employee of BCSS

   c. Name of Permittee* if different than Operator: Baldwin County Sewer Service, LLC
   **Permittee will be responsible for compliance with the conditions of the permit*

2. NPDES Permit Number: AL 0042234 (Not applicable if initial permit application)

3. Facility Physical Location (**Attach a map with location marked; street, route no. or other specific identifier**)
   Street: 12840 Highway 90
   City: Loxley County: Baldwin State: Alabama Zip: 36551
   Facility Location (Front Gate) Latitude: 30° 28' 7.6" Longitude: 87° 48' 53.3"

4. Facility Mailing Address: 14747 UNDERWOOD ROAD
   City: SUMMERDALE County: Baldwin State: Alabama Zip: 36580

5. Responsible Official (as described on last page of this application)
   Name and Title: Mr. Clarence E. Burke, Owner/Manager
   Address: 14747 UNDERWOOD ROAD
   City: SUMMERDALE State: Alabama Zip: 36580
   Phone Number: (251) 971-3022 Email Address: CLARENCE.CEB@GMAIL.COM

6. Designated Facility/DMR Contact:

Name and Title: David Flesch

Phone Number: 251-747-2977 Email Address: david.flesch@baldwincountysewer.com

7. Designated Emergency Contact:

Name and Title: David Flesch

Phone Number: 251-747-2977 Email Address: david.flesch@baldwincountysewer.com

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	AL0078565	Baldwin County Sewer Service
NPDES	AL0049859	Baldwin County Sewer Service
NPDES	AL0070904	Baldwin County Sewer Service
UIC	ALSI9902004	Baldwin County Sewer Service
UIC	ALSI992013	Baldwin County Sewer Service

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)
0011	no flow	no flow	no flow
0022	1.806	1.806	1.094

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.)

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
Waste Activated Sludge	Biofilter Bags

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*
Waste Activated Sludge (dewatered)	1100	Land Application

***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?
N/A				☐ 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 F – ANTI-DEGRADATION EVALUATION

It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity, if subject to antidegradation requirements. In accordance with 40 CFR 131.12 and Section 335-6-10-.04 of the Alabama Department of Environmental Management Administrative Code, the following information must be provided, if applicable. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991? Yes [x] No [ ].
   If "yes", complete question 2 below. If "no", do not complete this section.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in question 1? Yes [x] No [ ].

   If "no" and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete questions A through F below and also ADEM forms 311 and 312 or 313, whichever is applicable, (attached). Form 312 or 313, whichever is applicable, must be provided for each treatment discharge alternative considered technically viable. If "yes", do not complete this section.

   Information required for new or increased discharges to high quality waters:

   A. What environmental or public health problem will the discharger be correcting?

   B. Explain if and to what degree the discharger will be increasing employment as a result of the proposed discharge, either at its existing facility or as the result of the start-up of a related new facility or industry.

   C. Explain if and to what degree the discharge will prevent employment reductions?

   D. Describe any additional state or local taxes that the prospective discharger will be paying.

   E. Describe any public service the discharger will be providing to the community.

   F. Describe the economic or social benefit the discharger will be providing to the community.

SECTION G – EPA Application Forms

All Applicants must submit certain EPA permit application forms. More than one application form may be required from a municipal facility depending on the number and types of discharges or outfalls. The EPA application forms are found on the Department's website at http://www.adem.state.al.us/ and are also listed in Attachment 4.

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

Receiving Water(s)	303(d) Segment? (Y / N)	Included in TMDL?* (Y / N)
Bay Branch	**N**	**N**

*If a TMDL Compliance Schedule is requested the following should be attached as supporting documentation:
(1) Justification for the proposed 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 reported 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 the 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 RULE 335-6-6-.09 "SIGNATORY REQUIREMENTS FOR PERMIT APPLICATIONS" (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 RESONSIBLE 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."

"I FURTHER CERTIFY UNDER PENALTY OF LAW THAT THE RESULTS OF ANY ANALYSES REPORTED AS LESS THAN DETECTABLE IN THIS APPLICATION OR IN ATTACHMENTS THERETO WERE PERFORMED USING THE EPA APPROVED TEST METHOD HAVING THE LOWEST DETECTION LIMIT READILY ACHIEVABLE FOR THE SUBSTANCE TESTED."

SIGNATURE OF RESPONSIBLE OFFICIAL: _____ DATE SIGNED: 11-3-15

(TYPE OR PRINT)

NAME OF RESPONSIBLE OFFICIAL: Clarence E. Burke, Jr.

OFFICIAL TITLE OF RESPONSIBLE OFFICIAL: Owner/Manager

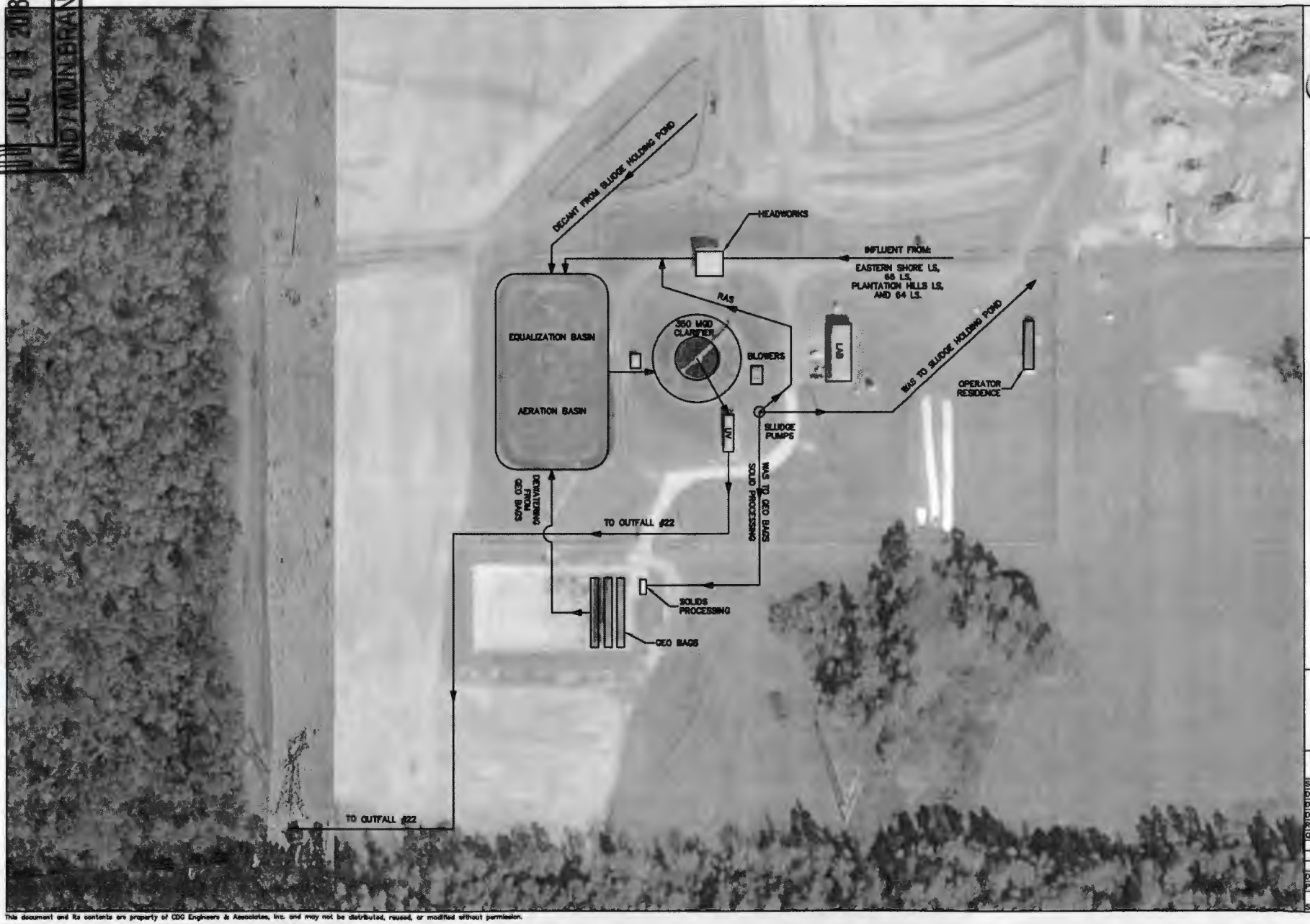
MAILING ADDRESS: P.O. Box 1628
Foley, Alabama 36536

AREA CODE & PHONE NUMBER: (251) 971-3022

SIGNATORY REQUIREMENTS FOR PERMIT APPLICATIONS

Responsible official is defined as follows:

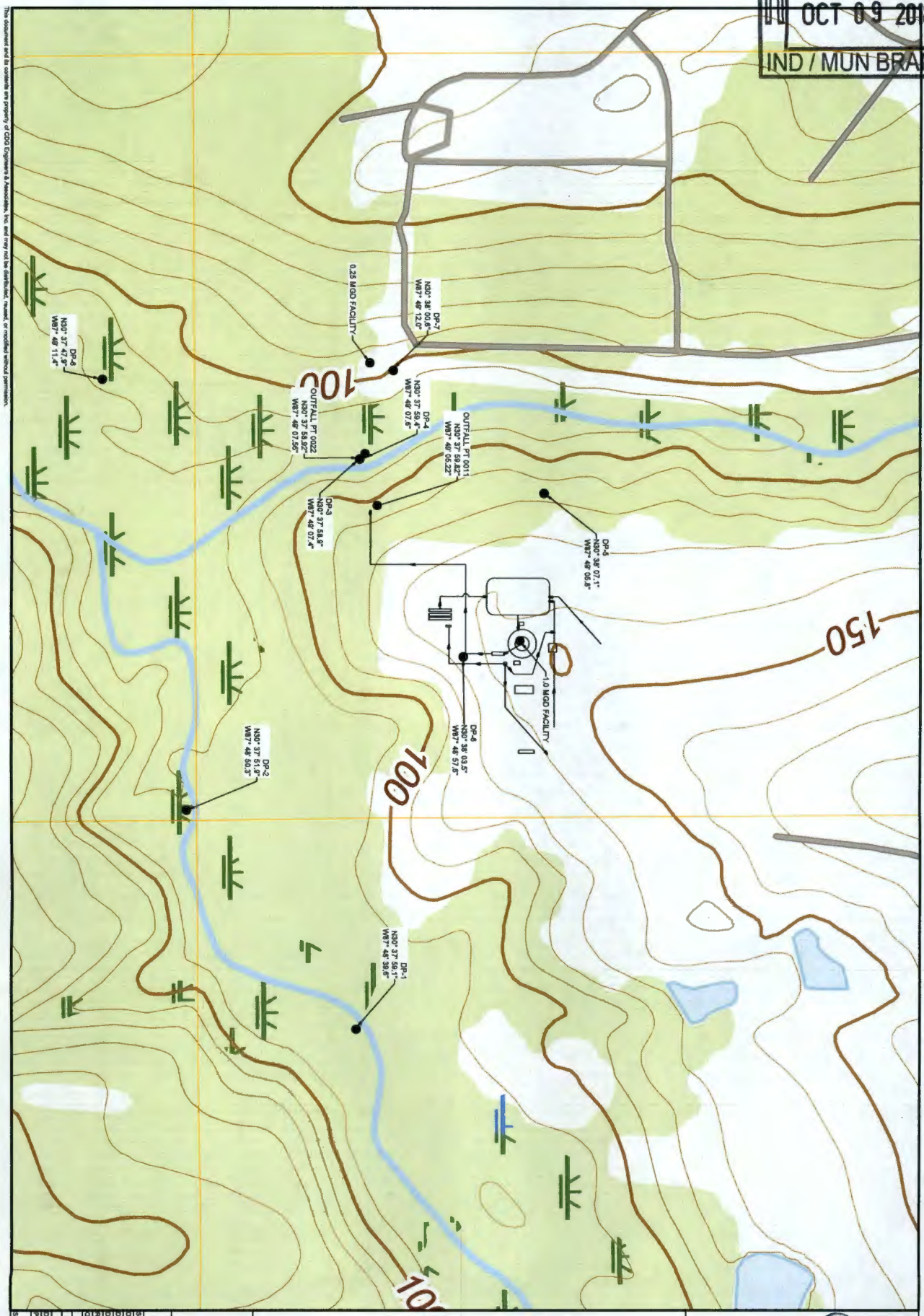
1. In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility.
2. In the case of a partnership, by a general partner
3. In the case of a sole proprietorship, by the proprietor, or
4. In the case of a municipal, state, federal, or other public facility, by either a principal executive officer, or a *ranking elected official.*
5. In the case of a private or semi-public facility, the responsible official is either a principal executive officer or the owner of the corporation or other entity.



CDG
Engineering Environmental Answers
778 NORTH DEAN ROAD
SUITE 200-A
AUBURN, AL 36830
P.O. BOX 2155 (36831) ANDALUSIA, AL
ALBERTVILLE, AL GADSDEN, AL
PH: (334) 466-9431 ALBERTVILLE, AL HOOVER, AL
FX: (334) 466-9450 DOTHAN, AL HUNTSVILLE, AL

SANISH FORT WWTP
SPANISH FORT
ALABAMA

SCALE:	
DATE:	May 2018
DESIGNED BY:	--
DRAWN BY:	--
REVIEWED BY:	--
QC REVIEWER:	--
REVISED	
DWG:	
PROJECT NO:	--
SHEET NO.	



SPANISH FORT WWTP
SPANISH FORT
ALABAMA

SCALE:	
DATE:	May 2018
DESIGNED BY:	-
DRAWN BY:	-
REVIEWED BY:	-
QC REVIEWER:	-
REVISED	
DWG:	-
PROJECT NO:	-
SHEET NO.	

778 NORTH DEAN ROAD
SUITE 200-A
AUBURN, AL 36830

P.O. BOX 2155 (36831)
PH: (334) 466-9431
FX: (334) 466-9430

CDG
Engineering Professional Services

AUBURN, AL
ANDALUSIA, AL
ALBERTVILLE, AL
DOTHAN, AL
GADSDEN, AL
HOOVER, AL
HUNTSVILLE, AL

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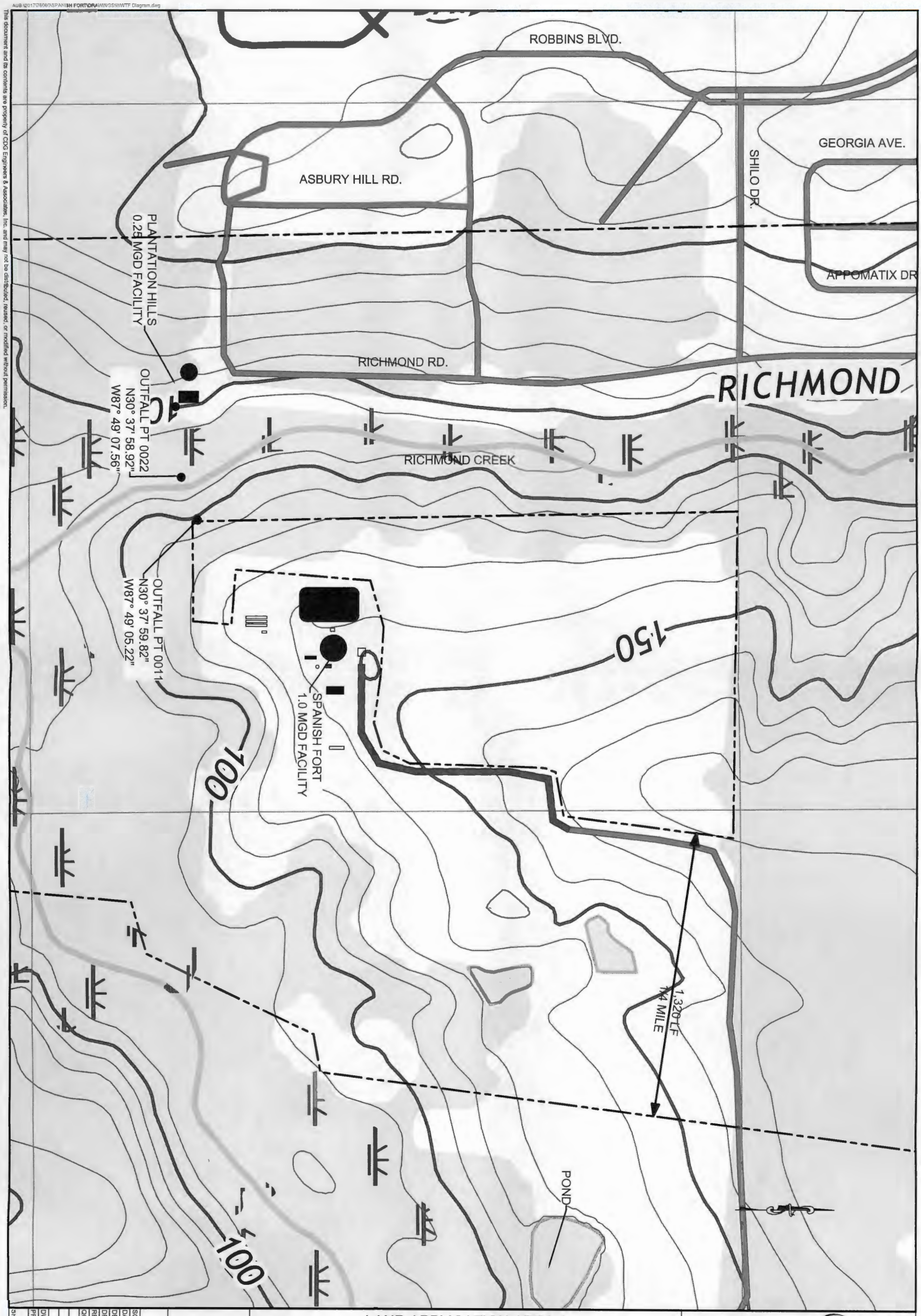

SHEET NO. 2 OF 5
PROJECT NO:
DWG:
REVISED
QC REVIEWER:
REVIEWED BY:
DRAWN BY:
DESIGNED BY:
DATE: November 18
SCALE: 1:400

LAND APPLICATION AREA 1
FOR THE BALDWIN COUNTY SEWER SERVICE
SPANISH FORT WWTP PERMIT
SPANISH FORT, ALABAMA

778 NORTH DEAN ROAD
SUITE 200-A
AUBURN, AL 36830

P.O. BOX 2155 (36831)
PH: (334) 466-9431
FX: (334) 466-9430

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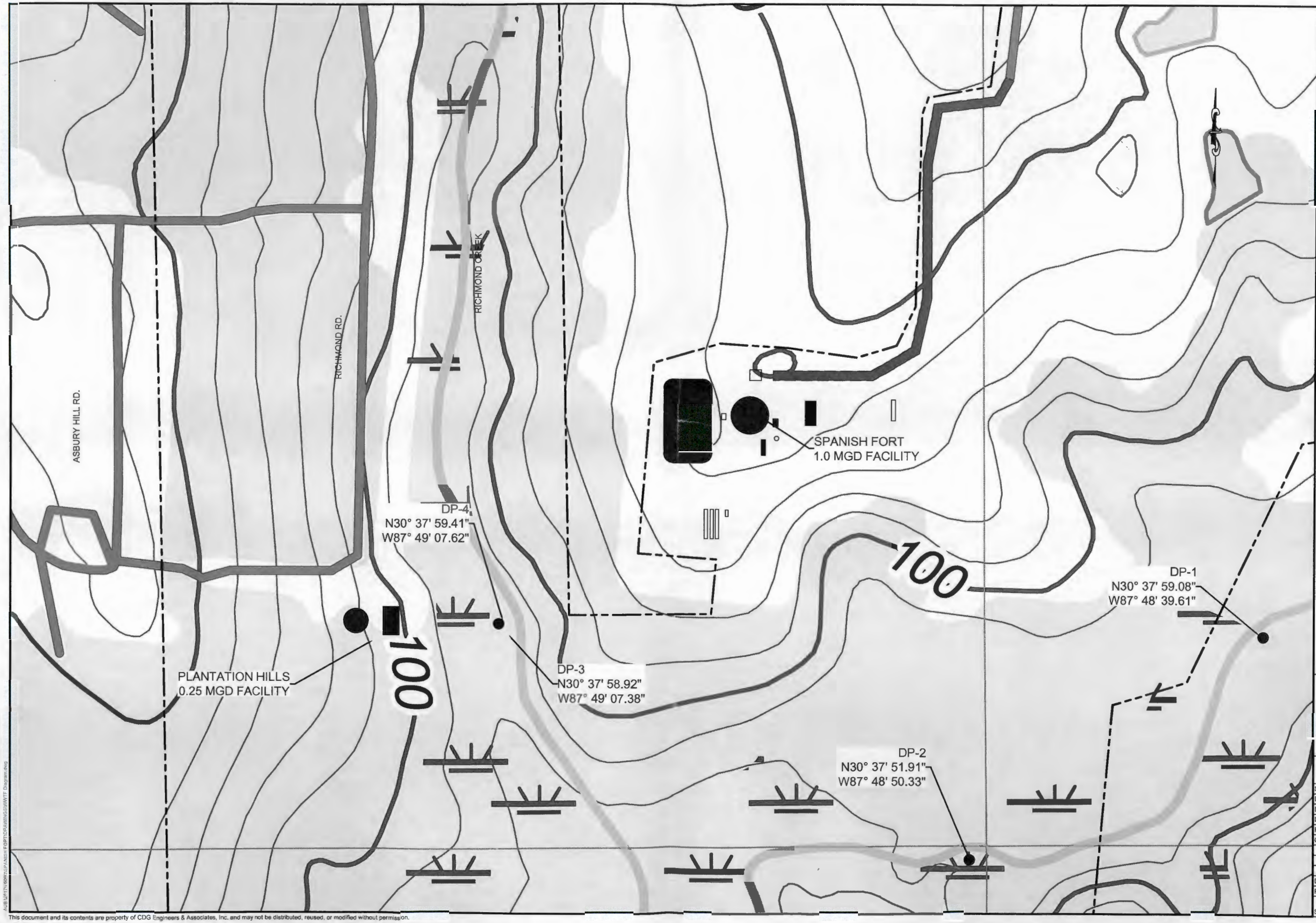
Engineering Environmental Answers
AUBURN, AL
ANDALUSIA, AL
ALBERTVILLE, AL
DOTHAN, AL
GADSDEN, AL
HOOVER, AL
HUNTSVILLE, AL



RUNOFF DISCHARGE POINTS
FOR THE BALDWIN COUNTY SEWER SERVICE
SPANISH FORT WWTP PERMIT
SPANISH FORT, ALABAMA

CDG
Engineering Environmental Answers
778 NORTH DEAN ROAD
SUITE 200-A
AUBURN, AL 36830
P.O. BOX 2155 (36831)
PH: (334) 466-9431
FX: (334) 466-9430
AUBURN, AL
ANDALUSIA, AL
ALBERTVILLE, AL
DOTHAN, AL
GADSDEN, AL
HOOVER, AL
HUNTSVILLE, AL

SCALE:	1"=100'
DATE:	November 18
DESIGNED BY:	
DRAWN BY:	
REVIEWED BY:	
QC REVIEWER:	
REVISED	
DWG:	
PROJECT NO:	
SHEET NO.	3 OF 5

ASBURY HILL RD.

RICHMOND RD.

RICHMOND CREEK

DP-5
N30° 38' 07.08"
W87° 49' 05.76"

SPANISH FORT
1.0 MGD FACILITY

DP-6
N30° 38' 03.52"
W87° 48' 57.63"

DP-7
N30° 38' 00.57"
W87° 49' 12.02"

DP-8
N30° 37' 58.92"
W87° 49' 11.24"

100

PLANTATION HILLS
0.25 MGD FACILITY

OUTFALL PT 0022
N30° 37' 58.92"
W87° 49' 07.56"

OUTFALL PT 0011
N30° 37' 59.82"
W87° 49' 05.22"

CDG
Engineering Environmental Answers
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SUITE 200-A
AUBURN, AL 36830
P.O. BOX 2155 (36831)
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FX: (334) 466-9430
AUBURN, AL
ANDALUSIA, AL GADSDEN, AL
ALBERTVILLE, AL HOOVER, AL
DOTHAN, AL HUNTSVILLE, AL

RUNOFF DISCHARGE POINTS
FOR THE BALDWIN COUNTY SEWER SERVICE
SPANISH FORT WWTP PERMIT
SPANISH FORT, ALABAMA

SCALE:	1"=100'
DATE:	November 18
DESIGNED BY:	
DRAWN BY:	
REVIEWED BY:	
QC REVIEWER:	
REVISED	
DWG:	
PROJECT NO:	
SHEET NO.	4 OF 5

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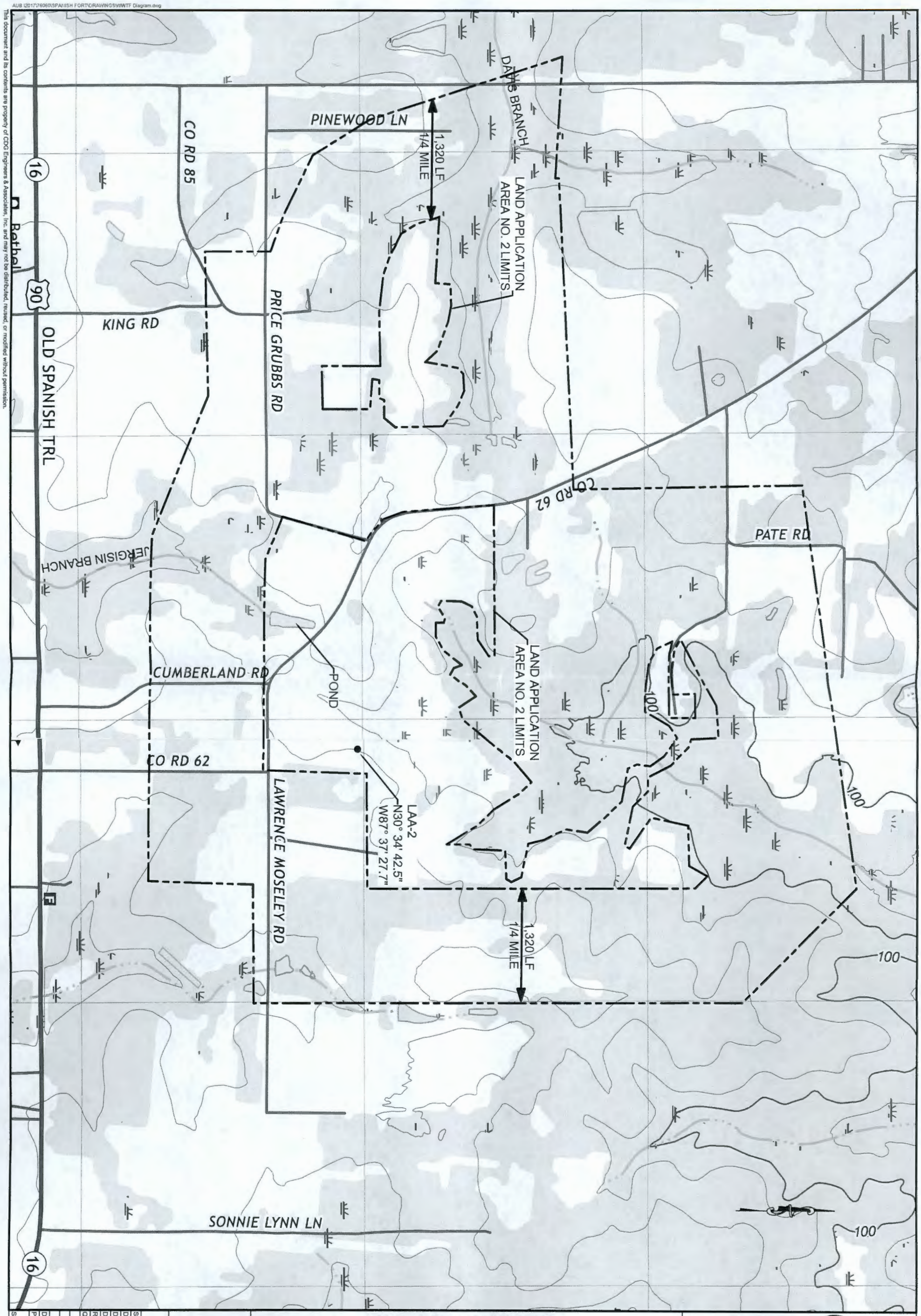

SHEET NO.	5 OF 5
PROJECT NO:	
DWG:	
SCALE:	1" = 500'
DATE:	November 18
DESIGNED BY:	
DRAWN BY:	
REVIEWED BY:	
QC REVIEWER:	
REVISED	

LAND APPLICATION AREA 1
FOR THE BALDWIN COUNTY SEWER SERVICE
SPANISH FORT WWTP PERMIT
SPANISH FORT, ALABAMA

778 NORTH DEAN ROAD
SUITE 200-A
AUBURN, AL 36830

P.O. BOX 2155 (36831)
PH: (334) 466-9431
FX: (334) 466-9430

CDG
Engineering Environmental Answers
AUBURN, AL
ANDALUSIA, AL GADSDEN, AL
ALBERTVILLE, AL HOOVER, AL
DOTHAN, AL HUNTSVILLE, AL

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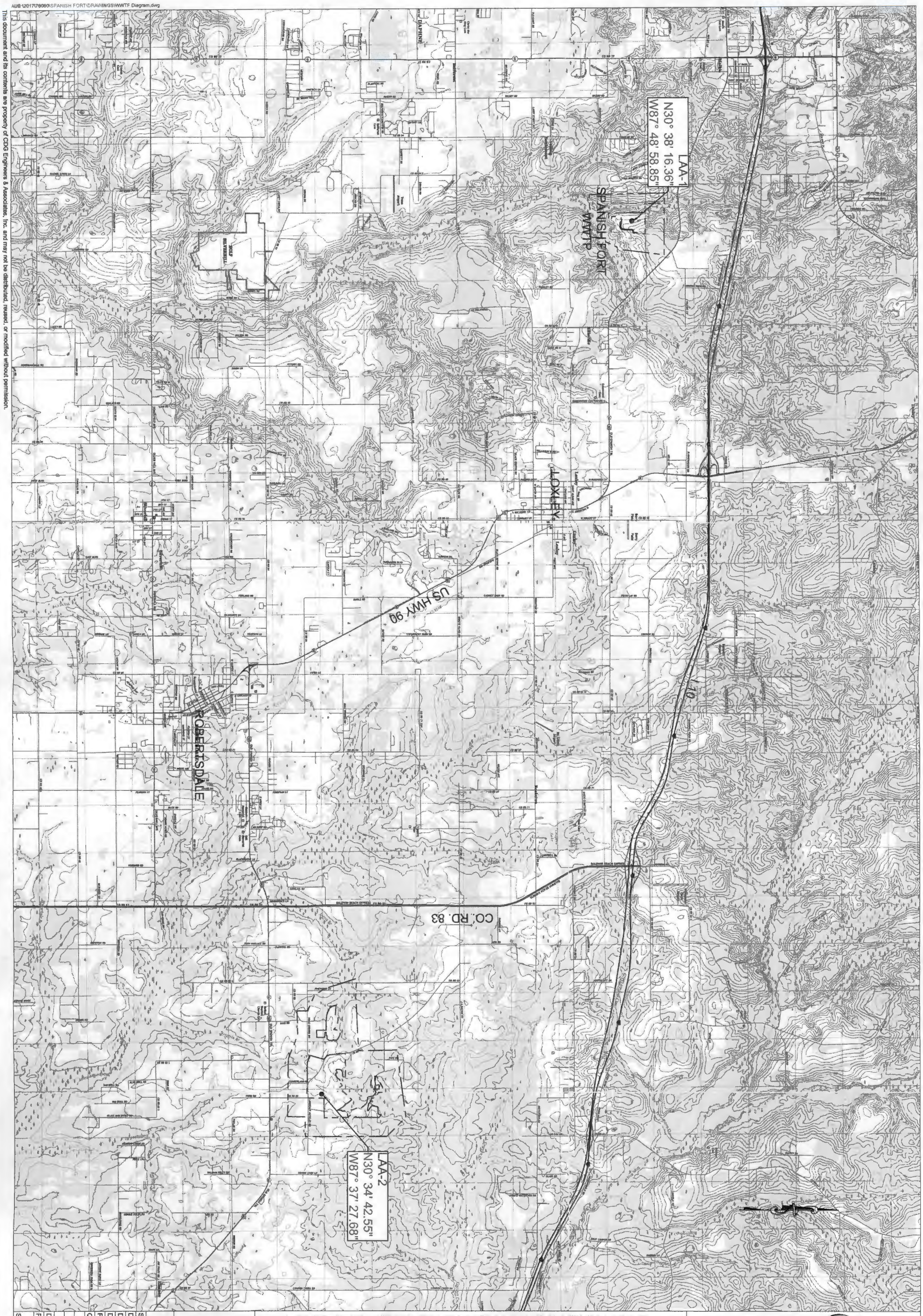

LAND APPLICATION OVERALL LOCATION MAP
SPANISH FORT WWTP PERMIT
FOR THE BALDWIN COUNTY SEWER SERVICE
SPANISH FORT, ALABAMA

SCALE: 1"=3000'
DATE: November 18
DESIGNED BY:
DRAWN BY:
REVIEWED BY:
QC REVIEWER:
REVISED
DWG:
PROJECT NO:
SHEET NO. 1 OF 5

778 NORTH DEAN ROAD
SUITE 200-A
AUBURN, AL 36830

P.O. BOX 2155 (36831)
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Engineering Environmental Answers
AUBURN, AL
ANDALUSIA, AL GADSDEN, AL
ALBERTVILLE, AL HOOVER, AL
DOTHAN, AL HUNTSVILLE, AL

Please print or type in the unshaded areas only.

EPA ID Number (*copy from Item 1 of Form 1*)
AL0042234

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*)
DP-1	30.00	37.00	59.10	87.00	48.00	39.60	Fish River
DP-2	30.00	37.00	51.90	87.00	48.00	50.30	Fish River
DP-3	30.00	37.00	58.90	87.00	49.00	7.40	Bay Branch
DP-4	30.00	37.00	59.40	87.00	49.00	7.60	Bay Branch
DP-5	30.00	38.00	7.10	87.00	49.00	5.80	Bay Branch
DP-6	30.00	38.00	3.50	87.00	48.00	57.60	Fish River
DP-7	30.00	38.00	0.60	87.00	49.00	12.00	Bay Branch
DP-8	30.00	37.00	58.92	87.00	49.00	11.24	Bay Branch

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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.
NONE	NONE	NONE	NONE		

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.

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of imperious 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)*
DP-1	0.6 acres	38 acres	DP-5	0.1 acres	17.8 acres
DP-2	0.46 acres	25 acres	DP-6	0.3 acres	3.1 acres
DP-3	1 acre	37 acres	DP-7	0.2 acres	1.7 acres
DP-4	0.25 acres	12 acres	DP-8	0.1 acres	1.8 acres

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.

There are no significant materials treated, stored or disposed in a manner to allow exposure to storm water. Any sludge application is immediately furrowed under and no pesticides, herbicides or fertilizers are used in the operations.

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
	There are no pollutants allowed to discharge with the storm water. The wastewater treatment from the collection system does not come in contact with the storm water. All wastewater in the facility is contained within the facility process structures. Therefore, no pollutants will be allowed to flow into the storm water runoff. Employee training on the prohibition of wastewater and wastewater byproducts comingling with the storm water is performed annually.	

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
Clarence E. Burke, Jr., Owner		1/4/19

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.

The original 4 discharge points were analyzed, but the facility has decided to use DP-5 through DP-8 as representative sampling sites due to the locations of the original points. The methods used for analysis of points DP-1 through DP-4 are EPA approved methods performed by a third party testing laboratory.

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.

To date, no significant spills or leaks have occured that would impact the stormwater runoff.

EPA ID Number *(copy from Item 1 of Form 1)*

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*)

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*)

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

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.
Clarence E. Burke, Jr., Owner	(251) 971-3022
C. Signature	D. Date Signed
	1/4/19

EPA ID Number (*copy from Item 1 of Form 1*)

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

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	2 mg/l	N/A	2 mg/l	N/A	1.00	
Biological Oxygen Demand (BOD5)	<2 mg/l	N/A	<2 mg/l	N/A	1.00	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	18.4 mg/l	N/A	18.4 mg/l	N/A	1.00	
Total Nitrogen	<0.99 mg/l	N/A	<0.99 mg/l	N/A	1.00	
Total Phosphorus	0.44 mg/l	N/A	0.44 mg/l	N/A	1.00	
pH	Minimum	Maximum	Minimum	Maximum		

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		

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Page VII-1

Continue on Reverse

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)*

7. Provide a description of the method of flow measurement or estimate.

Instructions – Form 2F
Application for Permit to Discharge Storm Water Associated with Industrial Activity

Who Must File Form 2F

Form 2F must be completed by operators of facilities which discharge storm water associated with industrial activity or by operators of storm water discharges that EPA is evaluating for designation as a significant contributor of pollutants to waters of the United States, or as contributing to a violation of a water quality standard.

Operators of discharges which are composed entirely of storm water must complete Form 2F (EPA Form 3510-2F) in conjunction with Form 1 (EPA Form 3510-1).

Operators of discharges of storm water which are combined with process wastewater (process wastewater is water that comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, waste product, or wastewater) must complete and submit Form 2F, Form 1, and Form 2C (EPA Form 3510-2C).

Operators of discharges of storm water which are combined with nonprocess wastewater (nonprocess wastewater includes noncontact cooling water and sanitary wastes which are not regulated by effluent guidelines or a new source performance standard, except discharges by educational, medical, or commercial chemical laboratories) must complete Form 1, Form 2F, and Form 2E (EPA Form 3510 2E).

Operators of new sources or new discharges of storm water associated with industrial activity which will be combined with other nonstormwater new sources or new discharges must submit Form 1, Form 2F, and Form 2D (EPA Form 3510-2D).

Where to File Applications

The application forms should be sent to the EPA Regional Office which covers the State in which the facility is located. Form 2F must be used only when applying for permits in States where the NPDES permits program is administered by EPA. For facilities located in States which are approved to administer the NPDES permits program, the State environmental agency should be contacted for proper permit application forms and instructions.

Information on whether a particular program is administered by EPA or by a State agency can be obtained from your EPA Regional Office. Form 1, Table 1 of the "General Instructions" lists the addresses of EPA Regional Offices and the States within the jurisdiction of each Office.

Completeness

Your application will not be considered complete unless you answer every question on this form and on Form 1. If an item does not apply to you, enter "NA" (for not applicable) to show that you considered the question.

Public Availability of Submitted Information

You may not claim as confidential any information required by this form or Form 1, whether the information is reported on the forms or in an attachment. Section 402(j) of the Clean Water Act requires that all permit applications will be available to the public. This information will be made available to the public upon request.

Any information you submit to EPA which goes beyond that required by this form, Form 1, or Form 2C you may claim as confidential, but claims for information which are effluent data will be denied.

If you do not assert a claim of confidentiality at the time of submitting the information, EPA may make the information public without further notice to you. Claims of confidentiality will be handled in accordance with EPA's business confidentiality regulations at 40 CFR Part 2.

Definitions

All significant terms used in these instructions and in the form are defined in the glossary found in the General Instructions which accompany Form 1.

EPA ID Number

Fill in your EPA Identification Number at the top of each odd numbered page of Form 2F. You may copy this number directly from item I of Form 1.

Item I

You may use the map you provided for item XI of Form 1 to determine the latitude and longitude of each of your outfalls and the name of the receiving water.

Item 11-A

If you check "yes" to this question, complete all parts of the chart, or attach a copy of any previous submission you have made to EPA containing the same information.

Item 11-B

You are not required to submit a description of future pollution control projects if you do not wish to or if none is planned.

Item III

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including:

each of its drainage and discharge structures;

the drainage area of each storm water outfall;

paved areas and building within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage or 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 facilities (including each area not required to have a RCRA permit which is used for accumulating hazardous waste for less than 90 days under 40 CFR 262.34);

each well where fluids from the facility are injected underground; and

springs, and other surface water bodies which receive storm water discharges from the facility;

Item IV-A

For each outfall, provide an estimate of the area drained by the outfall which is covered by impervious surfaces. For the purpose of this application, impervious surfaces are surfaces where storm water runs off at rates that are significantly higher than background rates (e.g., predevelopment levels) and include paved areas, building roofs, parking lots, and roadways. Include an estimate of the total area (including all impervious and pervious areas) drained by each outfall. The site map required under item III can be used to estimate the total area drained by each outfall.

Item IV-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 of these materials; past and present materials management practices employed, in the last three years, 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. Significant materials should be identified by chemical name, form (e.g., powder, liquid, etc.), and type of container or treatment unit. Indicate any materials treated, stored, or disposed of together. "Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101 (14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

Item IV-C

For each outfall, structural controls Include structures which enclose material handling or storage areas, covering materials, berms, dikes, or diversion ditches around manufacturing, production, storage or treatment units, retention ponds, etc. Nonstructural controls include practices such as spill prevention plans, employee training, visual inspections, preventive maintenance, and housekeeping measures that are used to prevent or minimize the potential for releases of pollutants.

Item V

Provide a certification that all outfalls that should contain storm water discharges associated with industrial activity have been tested or evaluated for the presence of non-storm water discharges which are not covered by an NPDES permit. Tests for such non-storm water discharges may include smoke tests, fluorometric dye tests, analysis of accurate schematics, as well as other appropriate tests. Part B must include a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test. All non-storm water discharges must be identified in a Form 2C or Form 2E which must accompany this application (see beginning of instructions under section titled "Who Must File Form 2F" for a description of when Form 2C and Form 2E must be submitted).

Item VI

Provide a description of existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years.

Item VII-A, B, and C

These items require you to collect and report data on the pollutants discharged for each of your outfalls. Each part of this item addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire item.

General Instructions

Part A requires you to report at least one analysis for each pollutant listed. Parts B and C require you to report analytical data in two ways. For some pollutants addressed in Parts B and C, if you know or have reason to know that the pollutant is present in your discharge, you may be required to list the pollutant and test (sample and analyze) and report the levels of the pollutants in your discharge. For all other pollutants addressed in Parts B and C, you must list the pollutant if you know or have reason to know that the pollutant is present in the discharge, and either report quantitative data for the pollutant or briefly describe the reasons the pollutant is expected to be discharged. (See specific instructions on the form and below for Parts A through C.) Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, material management practices, maintenance chemicals, history of spills and releases, intermediate and final products and byproducts, and any previous analyses known to you of your effluent or similar effluent.

A. **Sampling:** The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater or storm water discharges. You may contact EPA or your State permitting authority for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative, to the extent feasible, of your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit, or at any site adequate for the collection of a representative sample.

   For pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, and fecal coliform, grab samples taken during the first 30 minutes (or as soon thereafter as practicable) of the discharge must be used (you are not required to analyze a flow-weighted composite for these parameters). For all other pollutants both a grab sample collected during the first 30 minutes (or as soon thereafter as practicable) of the discharge and a flow-weighted composite sample must be analyzed. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period of greater than 24 hours.

   All samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches and at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where feasible, the variance in the duration of the event and the total rainfall of the event should not exceed 50 percent from the average or median rainfall event in that area.

   A grab sample shall be taken during the first thirty minutes of the discharge (or as soon thereafter as practicable), and a flow-weighted composite shall be taken for the entire event or for the first three hours of the event.

Grab and composite samples are defined as follows:

Grab sample: An individual sample of at least 100 milliliters collected during the first thirty minutes (or as soon thereafter as practicable) of the discharge. This sample is to be analyzed separately from the composite sample.

Flow-weighted Composite sample: A flow-weighted composite sample may be taken with a continuous sampler that proportions the amount of sample collected with the flow rate or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire event or for the first three hours of the event, with each aliquot being at least 100 milliliters and collected with a minimum period of fifteen minutes between aliquot collections. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically. Where GC/MS Volatile Organic Analysis (VOA) is required, aliquots must be combined in the laboratory immediately before analysis. Only one analysis for the composite sample is required.

Data from samples taken in the past may be used, provided that:

All data requirements are met;

Sampling was done no more than three years before submission; and

All data are representative of the present discharge.

Among the factors which would cause the data to be unrepresentative are significant changes in production level, changes in raw materials, processes, or final products, and changes in storm water treatment. When the Agency promulgates new analytical methods in 40 CFR Part 136, EPA will provide information as to when you should use the new methods to generate data on your discharges. Of course, the Director may request additional information, including current quantitative data, if they determine it to be necessary to assess your discharges. The Director may allow or establish appropriate site-specific sampling procedures or requirements including sampling locations, the season in which the sampling takes place, the minimum duration between the previous measurable storm event and the storm event sampled, the minimum or maximum level of precipitation required for an appropriate storm event, the form of precipitation sampled (snow melt or rainfall), protocols for collecting samples under 40 CFR Part 136, and additional time for submitting data on a case-by-case basis.

B. Reporting: All levels must be reported as concentration and mass (note: grab samples are reported in terms of concentration). You may report some or all of the required data by attaching separate sheets of paper instead of filling out pages VII-1 and VII-2 if the separate sheets contain all the required information in a format which is constant with pages VII-1 and VII-2 in spacing and identification of pollutants and columns. Use the following abbreviations in the columns headed "Units."

Concentration		Mass	
ppm	parts per million	lbs	pounds
mg/1	milligrams per liter	ton	tons (English tons)
ppb	parts per billion	mg	milligrams
ug/1	micrograms per liter	g	grams
kg	kilograms	T	tonnes (metric tons)

All reporting of values for metals must be in terms of "total recoverable metal," unless:

(1) An applicable, promulgated effluent limitation or standard specifies the limitation for the metal in dissolved, valent, or total form; or

(2) All approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium); or

(3) The permitting authority has determined that in establishing case-by-case limitations it is necessary to express the limitations on the metal in dissolved, valent, or total form to carry out the provisions of the CWA. If you measure only one grab sample and one flow-weighted composite

sample for a given outfall, complete only the "Maximum Values" columns and insert "1" into the "Number of Storm Events Sampled" column. The permitting authority may require you to conduct additional analyses to further characterize your discharges.

If you measure more than one value for a grab sample or a flow-weighted composite sample for a given outfall and those values are representative of your discharge, you must report them. You must describe your method of testing and data analysis. You also must determine the average of all values within the last year and report the concentration and mass under the "Average Values" columns, and the total number of storm events sampled under the "Number of Storm Events Sampled" columns.

C. **Analysis:** You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding time, preservation techniques, and the quality control measures which you used. If you have two or more substantially identical outfalls, you may request permission from your permitting authority to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the permitting authority, on a separate sheet attached to the application form, identify which outfall you did test, and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

Part VII-A

Part VII-A must be completed by all applicants for all outfalls who must complete Form 2F.

Analyze a grab sample collected during the first thirty minutes (or as soon thereafter as practicable) of the discharge and flow-weighted composite samples for all pollutants in this Part, and report the results except use only grab samples for pH and oil and grease. See discussion in General Instructions to Item VII for definitions of grab sample collected during the first thirty minutes of discharge and flow-weighted composite sample. The "Average Values" column is not compulsory but should be filled out if data are available.

Part VII B

List all pollutants that are limited in an effluent guideline which the facility is subject to (see 40 CFR Subchapter N to determine which pollutants are limited in effluent guidelines) or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPIDES permit). Complete one table for each outfall. See discussion in General instructions to item VII for definitions of grab sample collected during the first thirty minutes (or as soon thereafter as practicable) of discharge and flow-weighted composite sample. The "Average Values" column is not compulsory but should be filled out if data are available.

Analyze a grab sample collected during the first thirty minutes of the discharge and flow-weighted composite samples for all pollutants in this Part, and report the results, except as provided in the General Instructions.

Part VII-C

Part V11-C must be completed by all applicants for all outfalls which discharge storm water associated with industrial activity, or that EPA is evaluating for designation as a significant contributor of pollutants to waters of the United States, or as contributing to a violation of a water quality standard. Use both a grab sample and a composite sample for all pollutants you analyze for in this part except use grab samples for residual chlorine and fecal coliform. The "Average Values" column is not compulsory but should be filled out if data are available. Part C requires you to address the pollutants in Table 2F-2, 2F-3, and 2F-4 for each outfall. Pollutants in each of these Tables are addressed differently.

Table 2F-2: For each outfall, list all pollutants in Table 2F-2 that you know or have reason to believe are discharged (except pollutants previously listed in Part VII-B). If a pollutant is limited in an effluent guideline limitation which the facility is subject to, the pollutant must be analyzed and reported in Part VII-B. If a pollutant in Table 2F-2 is indirectly limited by an effluent guideline limitation through an indicator (e.g., use of TSS as an indicator to control the discharge of iron and aluminum), you must analyze for it and report the data in Part VII-B. For other pollutants listed in Table 2F-2 (those not limited directly or indirectly by an effluent limitation guideline), that you know or have reason to believe are discharged, you must either report quantitative data or briefly describe the reasons the pollutant is expected to be discharged.

Table 2F-3: For each outfall, list all pollutants in Table 2F-3 that you know or have reason to believe are discharged. For every pollutant in Table 2F-3 expected to be discharged in concentrations of 10 ppb or greater, you must submit quantitative data. For acrolein, acrylonitrile, 2,4 dinitrophenol, and 2-methyl-4,6 dinitrophenol, you must submit quantitative data if any of these four pollutants is expected to be discharged in concentrations of 100 ppb or greater. For every pollutant expected to be discharged in concentrations less than 10 ppb (or 100 ppb for the four pollutants listed above), then you must either submit quantitative data or briefly describe the reasons the pollutant is expected to be discharged.

Small Business Exemption - If you are a "small business," you are exempt from the reporting requirements for the organic toxic pollutants listed in Table 2F-3. There are two ways in which you can qualify as a small business". If your facility is a coal mine, and if your probable total annual production is less than 100,000 tons per year, you may submit past production data or estimated future production (such as a schedule of estimated total production under 30 CFR 795.14(c)) instead of conducting analyses for the organic toxic pollutants. If your facility is not a coal mine, and if your gross total annual sales for the most recent three years average less than $100,000 per year (in second quarter 1980 dollars), you may submit sales data for those years instead of conducting analyses for the organic toxic pollutants. The production or sales data must be for the facility which is the source of the discharge. The data should not be limited to production or sales for the process or processes which contribute to the discharge, unless those are the only processes at your facility. For sales data, in situations involving intracorporate transfer of goods and services, the transfer price per unit should approximate market prices for those goods and services as closely as possible. Sales figures for years after 1980 should be indexed to the second quarter of 1980 by using the gross national product price deflator (second quarter of 1980=100). This index is available in National Income and Product Accounts of the United States (Department of Commerce, Bureau of Economic Analysis).

Table 2F-4: For each outfall, list any pollutant in Table 2F-4 that you know or believe to be present in the discharge and explain why you believe it to be present. No analysis is required, but if you have analytical data, you must report them. Note: Under 40 CFR 117.12(a)(2), certain discharges of hazardous substances (listed at 40 CFR 177.21 or 40 CFR 302.4) may be exempted from the requirements of section 311 of CWA, which establishes reporting requirements, civil penalties, and liability for cleanup costs for spills of oil and hazardous substances. A discharge of a particular substance may be exempted if the origin, source, and amount of the discharged substances are identified in the NPDES permit application or in the permit, if the permit contains a requirement for treatment of the discharge, and if the treatment is in place. To apply for an exclusion of the discharge of any hazardous substance from the requirements of section 311, attach additional sheets of paper to your form, setting forth the following information:

1. The substance and the amount of each substance which may be discharged.

2. The origin and source of the discharge of the substance.

3. The treatment which is to be provided for the discharge by;

    a. An onsite treatment system separate from any treatment system treating your normal discharge;

    b. A treatment system designed to treat your normal discharge and which is additionally capable of treating the amount of the substance identified under paragraph 1 above; or

    c. Any combination of the above.

See 40 CFR 117.12(a)(2) and (c), published on August 29, 1979, in 44 FR 50766, or contact your Regional Office (Table I on Form 1, Instructions), for further information on exclusions from section 311.

Part VII-D

If sampling is conducted during more than one storm event, you only need to report the information requested in Part VII-D for the storm event(s) which resulted in any maximum pollutant concentration reported in Part VII-A, VII-B, or VII-C.

Provide flow measurements or estimates of the flow rate, and the total amount of discharge for the storm event(s) sampled, the method of flow measurement, or estimation. Provide the data and duration of the storm event(s) sampled, rainfall measurements, or estimates of the storm event which generated the sampled runoff and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event.

Part VII-E

List any toxic pollutant listed in Tables 2F-2, 2F-3, or 2F-4 which you currently use or manufacture as an intermediate or final product or byproduct. In addition, if you know or have reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) is discharged or if you use or manufacture 2,4,5-trichlorophenoxy acetic acid (2,4,5,-T); 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5,-TP); 2-(2,4,5-trichlorophenoxy) ethyl, 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorphenyl) phosphorothioate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophene (HCP); then list TCDD. The Director may waive or modify the requirement if you demonstrate that it would be unduly burdensome to identify each toxic pollutant and the Director has adequate information to issue your permit. You may not claim this information as confidential; however, you do not have to distinguish between use or production of the pollutants or list the amounts.

Item VIII

Self explanatory. The permitting authority may ask you to provide additional details after your application is received.

Item X

The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(4) of the Clean Water Act provides that "Any person who knowingly makes any false material statement, representation, or certification in any application, . . . shall upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than 2 years, or by both. If a conviction of such person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or by both." 40 CFR Part 122.22 requires the certification to be signed as follows:

(A) For a corporation: by a responsible corporate official. For purposes of this section, a responsible corporate official means (i) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25,000,000 (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: EPA does not require specific assignments or delegation of authority to responsible corporate officers identified in 122.22(a)(1)(i) The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate position under 122.22(a)(1)(ii) rather than to specific individuals.

(B) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(C) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

Table 2F-1
Codes for Treatment Units

Physical Treatment Processes

1-A	Ammonia Stripping	1-M	Grit Removal
1-B	Dialysis	1-N	Microstraining
1-C	Diatomaceous Earth Filtration	1-0	Mixing
1-D	Distillation	1-P	Moving Bed Filters
1-E	Electrodialysis	1-Q	Multimedia Filtration
1-F	Evaporation	1-R	Rapid Sand Filtration
1-G	Flocculation	1-S	Reverse Osmosis (Hyperfiltration)
1-H	Flotation	1-T	Screening
1-1	Foam Fractionation	1-U	Sedimentation (Setting)
1-J	Freezing	1-V	Slow Sand Filtration
1-K	Gas-Phase Separation	1-W	Solvent Extraction
1-L	Grinding (Comminutors)	1-X	Sorption

Chemical Treatment Processes

2-A	Carbon Adsorption	2-G	Disinfection (Ozone)
2-B	Chemical Oxidation	2-H	Disinfection (Other)
2-C	Chemical Precipitation	2-I	Electrochemical Treatment
2-D	Coagulation	2-J	Ion Exchange
2-E	Dechlorination	2-K	Neutralization
2-F	Disinfection (Chlorine)	2-L	Reduction

Biological Treatment Processes

3-A	Activated Sludge	3-E	Pre-Aeration
3-B	Aerated Lagoons	3-F	Spray Irrigation/Land Application
3-C	Anaerobic Treatment	3-G	Stabilization Ponds
3-D	Nitrification-Denitrification	3-H	Trickling Filtration

Other Processes

4-A	Discharge to Surface Water	4-C	Reuse/Recycle of Treated Effluent
4-B	Ocean Discharge Through Outfall	4-D	Underground Injection

Sludge Treatment and Disposal Processes

5-A	Aerobic Digestion	5-M	Heat Drying
5-B	Anaerobic Digestion	5-N	Heat Treatment
5-C	Belt Filtration	5-0	Incineration
5-D	Centrifugation	5-P	Land Application
5-E	Chemical Conditioning	5-0	Landfill
5-F	Chlorine Treatment	5-R	Pressure Filtration
5-G	Composting	5-S	Pyrolysis
5-H	Drying Beds	5-T	Sludge Lagoons
5-I	Elutriation	5-U	Vacuum Filtration
5-J	Flotation Thickening	5-V	Vibration
5-K	Freezing	5-W	Wet Oxidation
5-L	Gravity Thickening		

Table 2F-2

Conventional and Nonconventional Pollutants

Bromide
Chlorine, Total Residual
Color
Fecal Coliform
Fluoride
Nitrate-Nitrite
Nitrogen, Total Organic
Oil and Grease
Phosphorus, Total
Radioactivity
Sulfate
Sulfite
Surfactants
Aluminum, Total
Barium, Total
Boron, Total
Cobalt Total
Iron, Total
Magnesium, Total
Molybdenum, Total
Manganese, Total
Tin, Total
Titanium, Total

Table 2F-3

Toxic Pollutants

Toxic Pollutants and Total Phenol

Antimony, Total	Copper, Total	Silver, Total
Arsenic, Total	Lead, Total	Thallium, Total
Beryllium, Total	Mercury, Total	Zinc, Total
Cadmium, Total	Nickel, Total	Cyanide, Total
Chromium, Total	Selenium, Total	Phenols, Total

GC/MS Fraction Volatiles Compounds

Acrolein	Dichlorobromomethane	1,1,2,2,-Tetrachloroethane
Acrylonitrile	1,1-Dichloroethane	Tetrachloroethylene
Benzene	1,2-Dichloroethane	Toluene
Bromoform	1,1-Dichloroethylene	1,2-Trans-Dichloroethylene
Carbon Tetrachloride	1,2-Dichloropropane	1,1,1-Trichloroethane
Chlorobenzene	1.3-Dichloropropylene	1,1,2-Trichloroethane
Chlorodibromomethane	Ethylbenzene	Trichloroethylene
Chloroethane	Methyl Bromide	Vinyl Chloride
2-Chloroethylvinyl Ether	Methyl Chloride	
Chloroform	Methylene Chloride	

Acid Compounds

2-Chlorophenol	2,4-Dinitrophenol	Pentachlorophenol
2,4-Dichlorophenol	2-Nitrophenol	Phenol
2,4-Dimethylphenol	4-Nitrophenol	2,4,6-Trichlorophenol
4,6-Dinitro-O-Cresol	p-Chloro-M-Cresol	2-methyl-4,6 dinitrophenol

Base/Neutral

Acenaphthene	2-Chloronaphthalene	Fluroranthene
Acenaphthylene	4-Chlorophenyl Phenyl Ether	Fluorene
Anthracene	Chrysene	Hexachlorobenzene
Benzidine	Dibenzo(a,h)anthracene	Hexachlorobutadiene
Benzo(a)anthracene	1,2-Dichlorobenzene	Hexachloroethane
Benzo(a)pyrene	1,3-Dichlorobenzene	Indeno(1,2,3-cd)pyrene
3,4-Benzofluoranthene	1,4-Dichlorobenzene	Isophorone
Benzo(ghi)perylene	3,3'-Dichlorobenzidine	Napthalene
Benzo(k)fluoranthene	Diethyl Phthalate	Nitrobenzene
Bis(2-chloroethoxy)methane	Dimethyl Phthalate	N-Nitrosodimethylamine
Bis(2-chloroethyl)ether	Di-N-Butyl Phthalate	N-Nitrosodi-N-Propylamine
Bis(2-chloroisopropyl)ether	2,4-Dinitrotoluene	N-Nitrosodiphenylamine
Bis(2-ethylyhexyl)phthalate	2,6-Dinitrotoluene	Phenanthrene
4-Bromophenyl Phenyl Ether	Di-N-Octyphthalate	Pyrene
Butylbenzyl Phthalate	1,2-Diphenylhydrazine (as Azobenzene)	1,2,4-Trichlorobenzene

Pesticides

Aldrin	Dieldrin	PCB-1254
Alpha-BHC	Alpha-Endosulfan	PCB-1221
Beta-BHC	Beta-Endosulfan	PCB-1232
Gamma-BHC	Endosulfan Sulfate	PCB-1248
Delta-BHC	Endrin	PGB-1260
Chlordane	Endrin Aldehyde	PCB-1016
4,4'-DDT	Heptachlor	Toxaphene
4,4'-DDE	Heptachlor Epoxide	
4,4'-DDD	PCB-1242	

Table 2F-4

Hazardous Substances

Toxic Pollutant

Asbestos

Hazardous Substances

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline .
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumaphos
Cresol
Crotonaldehyde
Cyclohexane
2,4-D (2,4-Dichlorophenoxyacetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2-Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethyl amine
Dinitrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine
Kelthane
Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monoethyl amine
Monomethyl amine
Naled
Napthenic acid
Nitrotoluene
Parathion
Phenolsulfonate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Stronthium
Strychnine
Styrene
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)
TDE (Tetrachlorodiphenyl ethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Trichlorofan
Triethylamine
Trimethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium

REPRESENTATIVE STORM WATER OUTFALL CERTIFICATION
ADEM Form 450

This is to certify that the **storm water** outfalls located at:

DSN 1 Latitude (30) ° (37) ' (59.1) " N and Longitude (87) ° (48) ' (39.6) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

are associated with similar industrial activities such that the characteristics of storm water runoff are essentially the same. Therefore, Spanish Fort Sewer WWTP AL0042234 (Facility Name) requests that it be allowed to sample the outfall(s) located at:

DSN 5 Latitude (30) ° (38) ' (7.1) " N and Longitude (87) ° (49) ' (5.8) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

as the representative outfall(s).

This form must be signed by the official representative of the facility who is: the owner, the sole proprietor of a sole proprietorship, a general partner for a partnership, or by a ranking elected official or other duly authorized representative for a unit of government or an executive officer of **at least the level of vice president** for a corporation, having overall responsibility for the operation of the facility.

CERTIFICATION: I certify that I have chosen the point(s) that is/are most likely or as likely to contain potential pollutants from the area. 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 or imprisonment for knowing violations.

Permit Number (*if already a permitted facility): AL 0042234

Name and Official title (type or print): Spanish Fort Sewer WWTP

Address: 12840 Highway 90, Loxley, AL 36551

Phone Number: (251) 971-3022

Signature: _____

Please print name: Clarence E. Burke

Date signed: 1/4/19

Email address: clarence.ceb@gmail.com

***If this is a modification to an existing permit, then a modification fee must also be included.**

INSTRUCTIONS

One certification should be submitted for each set of points from the same drainage area for which you want to designate a representative sampling point or points.

If you have more than one drainage area, you must submit a site drawing designating the drainage areas and all points of discharge with the chosen representative sampling points designated in each area.

If you have more than one drainage area, you may request that only one area be sampled if the areas are very similar to one another in terms of potential pollutants. You must choose as the representative sampling point the point that has the highest potential to contain pollutants in the storm water.

REPRESENTATIVE STORM WATER OUTFALL CERTIFICATION
ADEM Form 450

This is to certify that the **storm water** outfalls located at:

DSN 2 Latitude (30) ° (37) ' (51.9) " N and Longitude (87) ° (48) ' (50.3) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

are associated with similar industrial activities such that the characteristics of storm water runoff are essentially the same. Therefore, Spanish Fort Sewer WWTP AL0042234 (Facility Name) requests that it be allowed to sample the outfall(s) located at:

DSN 6 Latitude (30) ° (38) ' (3.5) " N and Longitude (87) ° (48) ' (57.6) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

as the representative outfall(s).

This form must be signed by the official representative of the facility who is: the owner, the sole proprietor of a sole proprietorship, a general partner for a partnership, or by a ranking elected official or other duly authorized representative for a unit of government or an executive officer of **at least the level of vice president** for a corporation, having overall responsibility for the operation of the facility.

CERTIFICATION: I certify that I have chosen the point(s) that is/are most likely or as likely to contain potential pollutants from the area. 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 or imprisonment for knowing violations.

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Signature: _____

Please print name: Clarence E. Burke

Date signed: 1/4/19

Email address: clarence.ceb@gmail.com

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REPRESENTATIVE STORM WATER OUTFALL CERTIFICATION
ADEM Form 450

This is to certify that the **storm water** outfalls located at:

DSN 3 Latitude (30) ° (37) ' (58.9) " N and Longitude (87) ° (49) ' (7.4) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

are associated with similar industrial activities such that the characteristics of storm water runoff are essentially the same. Therefore, Spanish Fort Sewer WWTP AL0042234 (Facility Name) requests that it be allowed to sample the outfall(s) located at:

DSN 7 Latitude (30) ° (38) ' (0.6) " N and Longitude (87) ° (49) ' (12) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

as the representative outfall(s).

This form must be signed by the official representative of the facility who is: the owner, the sole proprietor of a sole proprietorship, a general partner for a partnership, or by a ranking elected official or other duly authorized representative for a unit of government or an executive officer of **at least the level of vice president** for a corporation, having overall responsibility for the operation of the facility.

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Please print name: Clarence E. Burke

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REPRESENTATIVE STORM WATER OUTFALL CERTIFICATION
ADEM Form 450

This is to certify that the **storm water** outfalls located at:

DSN 4 Latitude (30) ° (37) ' (59.4) " N and Longitude (87) ° (49) ' (7.6) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

are associated with similar industrial activities such that the characteristics of storm water runoff are essentially the same. Therefore, Spanish Fort Sewer WWTP AL0042234 (Facility Name) requests that it be allowed to sample the outfall(s) located at:

DSN 8 Latitude (30) ° (37) ' (58.92) " N and Longitude (87) ° (49) ' (11.24) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

DSN _____ Latitude (_____) ° (_____) ' (_____) " N and Longitude (_____) ° (_____) ' (_____) " W

as the representative outfall(s).

This form must be signed by the official representative of the facility who is: the owner, the sole proprietor of a sole proprietorship, a general partner for a partnership, or by a ranking elected official or other duly authorized representative for a unit of government or an executive officer of **at least the level of vice president** for a corporation, having overall responsibility for the operation of the facility.

CERTIFICATION: I certify that I have chosen the point(s) that is/are most likely or as likely to contain potential pollutants from the area. 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 or imprisonment for knowing violations.

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Phone Number: (251) 971-3022

Signature: _____

Please print name: Clarence E. Burke

Date signed: 1/4/19

Email address: clarence.ceb@gmail.com

***If this is a modification to an existing permit, then a modification fee must also be included.**

INSTRUCTIONS

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If you have more than one drainage area, you may request that only one area be sampled if the areas are very similar to one another in terms of potential pollutants. You must choose as the representative sampling point the point that has the highest potential to contain pollutants in the storm water.

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

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTP AL0042234

FORM 2S NPDES

NPDES FORM 2S APPLICATION OVERVIEW

PRELIMINARY INFORMATION

This page is designed to indicate whether the applicant is to complete Part 1 or Part 2. Review each category, and then complete Part 1 or Part 2, as indicated. For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

FACILITIES INCLUDED IN ANY OF THE FOLLOWING CATEGORIES MUST COMPLETE PART 2 (PERMIT APPLICATION INFORMATION).

1. Facilities with a currently effective NPDES permit.

2. Facilities which have been directed by the permitting authority to submit a full permit application at this time.

ALL OTHER FACILITIES MUST COMPLETE PART 1 (LIMITED BACKGROUND INFORMATION).

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTP AL0042234

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

PART 1: LIMITED BACKGROUND INFORMATION

This part should be completed only by "sludge-only" facilities - that is, facilities that do not currently have, and are not applying for, an NPDES permit for a direct discharge to a surface body of water.

For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

1. Facility Information.

a. Facility name: Spanish Fort Sewer WWTP

b. Mailing Address: P.O. Box 1628, Foley, AL 36536

c. Contact person: Clarence E. Burke, Jr.
Title: Owner/Manager
Telephone number: (251) 971-3022

d. Facility Address (not P.O. B ox): 12840 Highway 90
Loxley, AL 36551

e. Indicate the type of facility

_____ Publicly owned treatment works (POTW) ✓ Privately owned treatment works

_____ Federally owned treatment works _____ Blending or treatment operation

_____ Surface disposal site _____ Sewage sludge incinerator

_____ Other (describe) _____

2. Applicant Information.

a. Applicant name: Spanish Fort Sewer WWTP

b. Mailing Address: P.O. Box 1628, Foley, AL 36536

c. Contact person: Clarence E. Burke, Jr.
Title: Owner/Manager
Telephone number: (251) 971-3022

d. Is the applicant the owner or operator (or both) of this facility?

✓ owner ✓ operator

e. Should correspondence regarding this permit be directed to the facility or the applicant?

✓ facility _____ applicant

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTP AL0042234

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3. **Sewage Sludge Amount.** Provide the total dry metric tons per latest 365 day period of sewage sludge handled under the following practices:

a.	Amount generated at the facility	256.00 dry metric tons
b.	Amount received from off site	0.00 dry metric tons
c.	Amount treated or blended on site	0.00 dry metric tons
d.	Amount sold or given away in a bag or other container for application to the land	0.00 dry metric tons
e.	Amount of bulk sewage sludge shipped off site for treatment or blending	0.00 dry metric tons
f.	Amount applied to the land in bulk form	256.00 dry metric tons
g.	Amount placed on a surface disposal site	0.00 dry metric tons
h.	Amount fired in a sewage sludge incinerator	0.00 dry metric tons
i.	Amount sent to a municipal solid waste landfill	0.00 dry metric tons
j.	Amount used or disposed by another practice	0.00 dry metric tons
	Describe _____	

4. **Pollutant Concentrations.** Using the table below or a separate attachment, provide existing sewage sludge monitoring data for the pollutants for which limits in sewage sludge have been established in 40 CFR part 503 for this facility's expected use or disposal practices. If available, base data on three or more samples taken at least one month apart and no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
ARSENIC	2.40	6020	0.7
CADMIUM	1.90	6020	0.7
CHROMIUM	21.20	6020	3.3
COPPER	353.00	6020	3
LEAD	17.90	6020	3.3
MERCURY	5.20	7471	5.2
MOLYBDENUM	5.50	6020	3.3
NICKEL	15.20	6020	3.3
SELENIUM	5.00	6020	3
ZINC	1,170.00	6020	33

5. **Treatment Provided At Your Facility.**

a. Which class of pathogen reduction does the sewage sludge meet at your facility?

_____ Class A ✓ Class B _____ Neither or unknown

b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:

Current Process - Geo bags

Future Process - Using a waste pond. Geo Bags will only be used if there is a problem with the waste pond.

c. Which vector attraction reduction option is met for the sewage sludge at your facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ Option 9 (Injection below land surface)
__✓__ Option 10 (Incorporation into soil within 6 hours)
_____ Option 11 (Covering active sewage sludge unit daily)
_____ None or unknown

d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:

_____
_____

6. **Sewage Sludge Sent to Other Facilities.** Does the sewage sludge from your facility meet the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements, and one of the vector attraction options 1-8?
_____ Yes __✓__ No

If yes, go to question 8 (Certification).

If no, is sewage sludge from your facility provided to another facility for treatment, distribution, use, or disposal?
_____ Yes __✓__ No

If no, go to question 7 (Use and Disposal Sites).

If yes, provide the following information for the facility receiving the sewage sludge:

a. Facility name _____

b. Mailing address _____
_____

c. Contact person _____

Title _____

Telephone number _____

d. Which activities does the receiving facility provide? (Check all that apply)

_____ Treatment or blending
_____ Land application
_____ Incineration
_____ Sale or give-away in bag or other container
_____ Surface disposal
_____ Other (describe):

_____
_____

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTP AL0042234

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7. Use and Disposal Sites. Provide the following information for each site on which sewage sludge from this facility is used or disposed:

a. Site name or number: Site No. 1 - Spanish Fort

b. Contact person: Clarence Burke, Jr.

Title: Owners

Telephone: (251) 971-3022

c. Site location (Complete 1 or 2)

1. Street or Route #: 1280 HWY90

County: Baldwin

City or Town: Loxley State: Alabama Zip: 36551

2. Latitude: N 30° 38' 16.36 " Longitude: W 87° 48' 58.85"

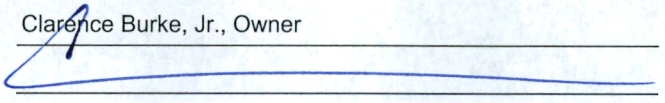
d. Site type (Check all that apply)

✓ Agricultural	____ Lawn or home garden	____ Forest
____ Surface disposal	____ Public Contact	____ Incineration
____ Reclamation	____ Municipal Solid Waste Landfill	____ Other (describe): _____

8. Certification. Sign the certification statement below. (Refer to instructions to determine who is an officer for purposes of this certification.)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the 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: Clarence Burke, Jr., Owner

Signature: 

Telephone number: (251) 971-3022

Date signed: 1/4/19

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTP AL0042234

Form Approved 1/14/99
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7. **Use and Disposal Sites.** Provide the following information for each site on which sewage sludge from this facility is used or disposed:

a. Site name or number: Site No. 2 - Robertsdale

b. Contact person: Clarence Burke, Jr.

Title: Owners

Telephone: (251) 971-3022

c. Site location (Complete 1 or 2)

1. Street or Route #: 23211 CR 62

County: Baldwin

City or Town: Robertsdale State: Alabama Zip: 36567

2. Latitude: N 30° 34' 42.55" Longitude: W 87° 37' 27.68"

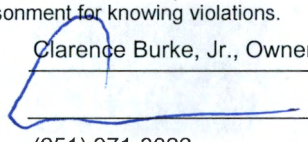
d. Site type (Check all that apply)

✓ Agricultural	____ Lawn or home garden	____ Forest
____ Surface disposal	____ Public Contact	____ Incineration
____ Reclamation	____ Municipal Solid Waste Landfill	____ Other (describe): _____

8. **Certification.** Sign the certification statement below. (Refer to instructions to determine who is an officer for purposes of this certification.)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the 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: Clarence Burke, Jr., Owner

Signature: 

Telephone number: (251) 971-3022

Date signed: 1/4/19

SEND COMPLETED FORMS TO:

PART 2: PERMIT APPLICATION INFORMATION

Complete this part if you have an effective NPDES permit or have been directed by the permitting authority to submit a full permit application at this time. In other words, complete this part if your facility has, or is applying for, an NPDES permit.

For purposes of this form, the term "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is submitted.

APPLICATION OVERVIEW — SEWAGE SLUDGE USE OR DISPOSAL INFORMATION

Part 2 is divided into five sections (A-E). Section A pertains to all applicants. The applicability of Sections B, C, D, and E depends on your facility's sewage sludge use or disposal practices. The information provided on this page indicates which sections of Part 2 to fill out.

1. **SECTION A: GENERAL INFORMATION.**

   Section A must be completed by all applicants

2. **SECTION B: GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE.**

   Section B must be completed by applicants who either:

   1) Generate sewage sludge, or

   2) Derive a material from sewage sludge.

3. **SECTION C: LAND APPLICATION OF BULK SEWAGE SLUDGE.**

   Section C must be completed by applicants who either:

   1) Apply sewage to the land, or

   2) Generate sewage sludge which is applied to the land by others.

   NOTE: Applicants who meet either or both of the two above criteria are exempted from this requirement if <u>all</u> sewage sludge from their facility falls into one of the following three categories:

   1) The sewage sludge from this facility meets the ceiling and pollutant concentrations, Class A pathogen reduction requirements, and one of vector attraction reduction options 1-8, as identified in the instructions, or
   2) The sewage sludge from this facility is placed in a bag or other container for sale or give-away for application to the land, or
   3) The sewage sludge from this facility is sent to another facility for treatment or blending.

4. **SECTION D: SURFACE DISPOSAL**

   Section D must be completed by applicants who own or operate a surface disposal site.

5. **SECTION E: INCINERATION**

   Section E must be completed by applicants who own or operate a sewage sludge incinerator.

A. GENERAL INFORMATION

All applicants must complete this section.

A.1. Facility Information.

a. Facility name: Spanish Fort Sewer WWTP

b. Mailing Address: P.O. Box 1628, Foley, Alabama 36536

c. Contact person: David Flesch

Title: Chief Operator

Telephone number: (251) 747-2977

d. Facility Address (not P.O. Box): 12840 Highway 90, Loxley, Alabama 36551

e. Is this facility a Class I sludge management facility? ____ Yes ✓ No

f. Facility design flow rate: 1.00 mgd

g. Total population served: 22,108.00

h. Indicate the type of facility:

____ Publicly owned treatment works (POTW)
✓ Privately owned treatment works
____ Federally owned treatment works
____ Blending or treatment operation
____ Surface disposal site
____ Sewage sludge incinerator
____ Other (describe)

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

a. Applicant name: Spanish Fort Sewer WWTP

b. Mailing Address: P.O. Box 1628, Foley, Alabama 36536

c. Contact person: David Flesch

Title: Chief Operator

Telephone number: (251) 747-2977

d. Is the applicant the owner or operator (or both) of this facility?

✓ owner ✓ operator

e. Should correspondence regarding this permit should be directed to the facility or the applicant.

✓ facility ____ applicant

A.3. Permit Information.

a. Facility's NPDES permit number (if applicable): AL0042234

b. List, on this form or an attachment, all other Federal, State, and local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

Permit Number	Type of Permit
AL0078565	NPDES
AL0049859	NPDES
AL0070904	NPDES

A.4. Indian Country. Does any generation, treatment, storage, application to land, or disposal of sewage sludge from this facility occur in Indian Country?

_____Yes ✓ No If yes, describe: _____

A.5. Topographic Map. Provide a topographic map or maps (or other appropriate map(s) if a topographic map is unavailable) that show the following information. Map(s) should include the area one mile beyond all property boundaries of the facility:

a. Location of all sewage sludge management facilities, including locations where sewage sludge is stored, treated, or disposed.

b. Location of all wells, springs, and other surface water bodies, listed in public records or otherwise known to the applicant within 1/4 mile of the facility property boundaries.

A.6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit, including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

A.7. Contractor Information.

Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? _____Yes ✓ No

If yes, provide the following for each contractor (attach additional pages if necessary):

a. Name _____

b. Mailing Address _____

c. Telephone Number _____

d. Responsibilities of contractor _____

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTP AL0042234

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A.8. Pollution 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 Part 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 four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
ARSENIC	2.40	6020	0.7
CADMIUM	1.90	6020	0.7
CHROMIUM	21.20	6020	3.3
COPPER	353.00	6020	3
LEAD	17.90	6020	3.3
MERCURY	5.20	7471	5.2
MOLYBDENUM	5.50	6020	3.3
NICKEL	15.20	6020	3.3
SELENIUM	5.00	6020	3
ZINC	1,170.00	6020	33

A.9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of Form 2S you have completed and are submitting:

✓ Part 1 Limited Background Information packet

Part 2 Permit Application Information packet:

✓ Section A (General Information)

____ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

✓ Section C (Land Application of Bulk Sewage Sludge)

____ Section D (Surface Disposal)

____ Section E (Incineration)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the 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: Clarence Burke, Jr., Owner

Signature: _____ Date signed: 1/4/19

Telephone number: _____

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

SEND COMPLETED FORMS TO:

B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge.

B.1. Amount Generated On Site.

Total dry metric tons per 365-day period generated at your facility: 256.00 dry metric tons

B.2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use, or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.

a. Facility name _____

b. Mailing Address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Facility Address (not P.O. Box) _____

_____

e. Total dry metric tons per 365-day period received from this facility: 0.00 dry metric tons

f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics.

_____

_____

B.3. Treatment Provided At Your Facility.

a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?

_____ Class A ✓ Class B _____ Neither or unknown

b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:

_____

_____

c. Which vector attraction reduction option is met for the sewage sludge at your facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
✓ None or unknown

FACILITY NAME AND PERMIT NUMBER:
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B.3. Treatment Provided At Your Facility. (con't)

d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge:
N/A

e. Describe, on this form or another sheet of paper, any other sewage sludge treatment or blending activities not identified in (a) - (d) above:
N/A

Complete Section B.4 if sewage sludge from your facility meets the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of §503.13, the Class A pathogen reduction requirements in §503.32(a), and one of the vector attraction reduction requirements in § 503.33(b)(1)-(8) and is land applied. Skip this section if sewage sludge from your facility does not meet all of these criteria.

B.4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements, and One of Vector Attraction Reduction Options 1-8.

a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: _____ dry metric tons

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

_____Yes _____No

Complete Section B.5. if you place sewage sludge in a bag or other container for sale or give-away for land application. Skip this section if the sewage sludge is covered in Section B.4.

B.5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

a. 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: _____ dry metric tons

b. Attach, with this application, 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.

Complete Section B.6 if sewage sludge from your facility is provided to another facility that provides treatment or blending. This section does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this section if the sewage sludge is covered in Sections B.4 or B.5. If you provide sewage sludge to more than one facility, attach additional pages as necessary.

B.6. Shipment Off Site for Treatment or Blending.

a. Receiving facility name _____

b. Mailing address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: _____

B.6. Shipment Off Site for Treatment or Blending. (con't)

e. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility?____ Yes ✓ No

Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?

_____ Class A _____ Class B ✓ Neither or unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:
N/A

f. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge?
_____Yes _____No

Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
✓ None

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge.

N/A

g. Does the receiving facility provide any additional treatment or blending activities not identified in (c) or (d) above? ____ Yes ✓ No

If yes, describe, on this form or another sheet of paper, the treatment or blending activities not identified in (c) or (d) above:

h. If you answered yes to (e), (f), or (g), 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).

i. 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

If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

Complete Section B.7 if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in:

- **Section B.4 (it meets Table 1 ceiling concentrations, Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8); or**
- **Section B.5 (you place it in a bag or other container for sale or give-away for application to the land); or**
- **Section B.6 (you send it to another facility for treatment or blending).**

B.7. Land Application of Bulk Sewage Sludge.

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: 256.00 dry metric tons

B.7. Land Application of Bulk Sewage Sludge. (con't)

b. Do you identify all land application sites in Section C of this application? ✓ Yes _____ No

If no, submit a copy of the land application plan with application (see instructions).

c. 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

If yes, describe, on this form or another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

N/A

Complete Section B.8 if sewage sludge from your facility is placed on a surface disposal site.

B.8. Surface Disposal.

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

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

_____ Yes _____ No

If no, answer B.8.c through B.8.f for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one such surface disposal site, attach additional pages as necessary.

c. Site name or number N/A

d. Contact person N/A

Title N/A

Telephone number _____

Contact is _____Site owner _____Site operator

e. Mailing address N/A

f. Total dry metric tons of sewage sludge from your facility placed on this surface disposal site per 365-day period: _____ dry metric tons

Complete Section B.9 if sewage sludge from your facility is fired in a sewage sludge incinerator.

B.9. Incineration.

a. Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period: _____ dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? _____ Yes _____ No

If no, complete B.9.c through B.9.f for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one such sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number: N/A

d. Contact person: N/A

Title: N/A

Telephone number: _____

Contact is: _____ Incinerator owner _____ Incinerator operator

B.9. Incineration. (con't)

e. Mailing address: N/A

f. Total dry metric tons of sewage sludge from your facility fired in this sewage sludge incinerator per 365-day period: _____ dry metric tons

Complete Section B.10 if sewage sludge from this facility is placed on a municipal solid waste landfill.

B.10. Disposal in a Municipal Solid Waste Landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

a. Name of landfill: N/A

b. Contact person: N/A

Title: N/A

Telephone number: _____

Contact is _____ Landfill owner _____ Landfill operator

c. Mailing address: N/A

d. Location of municipal solid waste landfill:

Street or Route #: N/A

County: N/A

City or Town: N/A State _____ Zip _____

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

_____ dry metric tons

f. List, on this form or an attachment, 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

g. Submit, with this 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)

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

_____ Yes _____ No

FACILITY NAME AND PERMIT NUMBER:
Spanish Fort Sewer WWTP AL0042234

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C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete Section C for sewage sludge that is applied to the land, unless any of the following conditions apply:

- **The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8 (fill out B.4 Instead); or**
- **The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 Instead); or**
- **You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).**

Complete Section C for every site on which the sewage sludge that you reported in Section B.7 is applied.

C.1. Identification of Land Application Site.

a. Site name or number: Site No. 1 - Spanish Fort

b. Site location (Complete 1 and 2).

1. Street or Route #: 12840 HWY 90

County: Baldwin

City or Town: Loxley State: Alabama Zip: 36551

2. Latitude: N 30° 38' 16.36 " Longitude: W 87° 48' 58.85"

Method of latitude/longitude determination

_____ USGS map _____ Field survey ✓ Other

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

C.2. Owner Information.

a. Are you the owner of this land application site? ✓ Yes _____ No

b. If no, provide the following information about the owner:

Name: Clarence Burke, Jr.

Telephone number: (251) 971-3022

Mailing Address: 14747 Underwood Road
Summerdale, AL 36580

C.3. Applier Information.

a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?
_____ Yes ✓ No

b. If no, provide the following information for the person who applies:

Name: David Flesch

Telephone number: (251) 747-2977

Mailing Address: 12840 HWY 90
Loxley, AL 36551

C.4. Site Type: Identify the type of land application site from among the following.

✓ Agricultural land _____ Forest _____ Public contact site
_____ Reclamation site _____ Other. Describe: _____

C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete Section C for sewage sludge that is applied to the land, unless any of the following conditions apply:

- **The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8 (fill out B.4 Instead); or**
- **The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 Instead); or**
- **You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).**

Complete Section C for every site on which the sewage sludge that you reported in Section B.7 is applied.

C.1. Identification of Land Application Site.

a. Site name or number: Site No. 2 - Robertsdale

b. Site location (Complete 1 and 2).

1. Street or Route #: 2311 CR62

County: Baldwin

City or Town: Robertsdale State: Alabama Zip: 36567

2. Latitude: N 30° 34' 42.55" Longitude: W 87° 37' 27.68"

Method of latitude/longitude determination

_____ USGS map _____ Field survey _____ Other

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

C.2. Owner Information.

a. Are you the owner of this land application site? ✓ Yes _____ No

b. If no, provide the following information about the owner:

Name: Clarence Burke, Jr.

Telephone number: (251) 971-3022

Mailing Address: 14747 Underwood Road
Summerdale, AL 36580

C.3. Applier Information.

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

_____ Yes ✓ No

b. If no, provide the following information for the person who applies:

Name: Matthew Conway

Telephone number: (251) 747-4079

Mailing Address: 23211 CR62
Robertsdale, AL 36567

C.4. Site Type: Identify the type of land application site from among the following.

✓ Agricultural land _____ Forest _____ Public contact site

_____ Reclamation site _____ Other. Describe: _____

C.5. Crop or Other Vegetation Grown on Site.

a. What type of crop or other vegetation is grown on this site?
oats, hay

b. What is the nitrogen requirement for this crop or vegetation?
1lb/bu

C.6. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?
✓ Yes _____ No

If yes, answer C.6.a and C.6.b;

a. Indicate which vector attraction reduction option is met:

_____ Option 9 (Injection below land surface)
✓ Option 10 (Incorporation into soil within 6 hours)

b. Describe, on this form or another sheet of paper, any treatment processes used at the land application site to reduce vector attraction properties of sewage sludge:

Activated sludge (clarifier) pumped to Geo Bag with Polymer added to de-water it. Filtrate from Geo Bags pumped back to plant for further treatment. Geo Bags are allowed to dry for 6 mos tested, used

Complete Question C.7 only if the sewage sludge applied to this site since July 20, 1993, is subject to the cumulative pollutant loading rates (CPLRs) in 40 CFR 503.13(b)(2).

C.7. Cumulative Loadings and Remaining Allotments.

a. Have you contacted the 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

If no, sewage sludge subject to CPLRs may not be applied to this site.

If yes, provide the following information:

Permitting authority _____

Contact Person _____

Telephone number _____

b. Based upon this inquiry, has bulk sewage sludge subject to CPLRs been applied to this site since July 20, 1993?
_____ Yes _____ No

If no, skip C.7.c.

c. Provide the following information for every facility other than yours that is sending, or has sent, bulk sewage sludge 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.

Facility name _____

Mailing Address _____

_____

Contact person _____

Title _____

Telephone number _____

D. SURFACE DISPOSAL

Complete this section if you own or operate a surface disposal site.

Complete Sections D.1 - D.5 for each active sewage sludge unit.

D.1. Information on Active Sewage Sludge Units.

a. Unit name or number: _____

b. Unit location (Complete 1 and 2).

1. Street or Route # _____

County _____

City or Town _____ State _____ Zip _____

2. Latitude_____ Longitude_____

Method of latitude/longitude determination: _____ USGS map _____ Field survey _____ Other

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

d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period: _____ dry metric tons

e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: _____ dry metric tons

f. Does the active sewage sludge unit have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec? _____ Yes _____ No

If yes, describe the liner (or attach a description):

_____

_____

g. Does the active sewage sludge unit have a leachate collection system? _____ Yes _____ No

If yes, describe the leachate collection system (or attach a description). Also describe the method used for leachate disposal and provide the numbers of any Federal, State, or local permit(s) for leachate disposal:

_____

_____

h. If you answered no to either D.1.f. or D.1.g., answer the following question:

Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site?
_____ Yes _____ No

If yes, provide the actual distance in meters: _____

Provide the following information:

Remaining capacity of active sewage sludge unit, in dry metric tons: _____ dry metric tons

Anticipated closure date for active sewage sludge unit, if known: _____ (MM/DD/YYYY)

Provide, with this application, a copy of any closure plan that has been developed for this active sewage sludge unit.

D.2. Sewage Sludge from Other Facilities. Is sewage sent to this active sewage sludge unit from any facilities other than your facility?

_____ Yes _____ No

If yes, provide the following information for each such facility. If sewage sludge is sent to this active sewage sludge unit from more than one such facility, attach additional pages as necessary.

a. Facility name _____

b. Mailing Address _____

_____

c. Contact person _____

Title _____

Telephone number _____

d. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?

_____ Class A _____ Class B _____ None or unknown

e. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge:

_____

_____

f. Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)
_____ Option 2 (Anaerobic process, with bench-scale demonstration)
_____ Option 3 (Aerobic process, with bench-scale demonstration)
_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
_____ Option 5 (Aerobic processes plus raised temperature)
_____ Option 6 (Raise pH to 12 and retain at 11.5)
_____ Option 7 (75 percent solids with no unstabilized solids)
_____ Option 8 (90 percent solids with unstabilized solids)
_____ None or unknown

g. Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge

_____

_____

h. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in (d) - (g) above:

_____

_____

D.3. Vector Attraction Reduction

a. Which vector attraction 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)

D.3. Vector Attraction Reduction. (con't)

b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge:

_____

_____

D.4. Ground-Water Monitoring.

a. Is ground-water monitoring currently conducted at this active sewage sludge unit, or are ground-water monitoring data otherwise available for this active sewage sludge unit?
_____ Yes _____ No

If yes, provide a copy of available ground-water monitoring data. Also, provide a written description of the well locations, the approximate depth to ground-water, and the ground-water monitoring procedures used to obtain these data.

_____

_____

b. Has a ground-water monitoring program been prepared for this active sewage sludge unit? _____ Yes _____ No

If yes, submit a copy of the ground-water monitoring program with this permit application.

c. Have you obtained a certification from a qualified ground-water scientist that the aquifer below the active sewage sludge unit has not been contaminated? _____ Yes _____ No

If yes, submit a copy of the certification with this permit application.

D.5. Site-Specific Limits. Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?
_____ Yes _____ No

If yes, submit information to support the request for site-specific pollutant limits with this application.

E. INCINERATION

Complete this section if you fire sewage sludge in a sewage sludge incinerator.

Complete this section once for each incinerator in which you fire sewage sludge. If you fire sewage sludge in more than one sewage sludge incinerator, attach additional copies of this section s necessary.

E.1. Incinerator Information.

a. Incinerator name or number: _____

b. Incinerator location (Complete 1 and 2).

1. Street or Route # _____

County _____

City or Town _____ State _____ Zip _____

2. Latitude_____ Longitude_____

Method of latitude/longitude determination: _____ USGS map _____ Field survey _____ Other

E.2. Amount Fired. Dry metric tons per 365-day period of sewage sludge fired in the sewage sludge incinerator: _____ dry metric tons

E.3. Beryllium NESHAP.

a. Is the sewage sludge fired in this incinerator "beryllium-containing waste," as defined in 40 CFR Part 61.31? _____ Yes _____ No

Submit, with this application, information, test data, and description of measures taken that demonstrate whether the sewage sludge incinerated is beryllium-containing waste, and will continue to remain as such.

b. If the answer to (a) is yes, **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.

E.4. Mercury NESHAP.

a. How is compliance with the mercury NESHAP being demonstrated?

_____ Stack testing (if checked, complete E.4.b)

_____ Sewage sludge sampling (if checked, complete E.4.c)

b. If stack testing is conducted, submit the following information with this application:

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.

Copies of mercury emission rate tests for the two most recent years in which testing was conducted.

c. If sewage sludge sampling is used to demonstrate compliance, 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.

E.5. Dispersion Factor.

a. Dispersion factor, in micrograms/cubic meter per gram/second: _____

b. Name and type of dispersion model: _____

c. Submit a copy of the modeling results and supporting documentation with this application.

E.6. Control Efficiency.

a. Control efficiency, in hundredths, for the following pollutants:

Arsenic: _____ Chromium: _____ Nickel: _____

Cadmium: _____ Lead: _____

b. Submit a copy of the results or performance testing and supporting documentation (including testing dates) with this application.

E.7. Risk Specific Concentration for Chromium.

a. Risk specific concentration (RSC) used for chromium, in micrograms per cubic meter: _____

b. Which basis was used to determine the RSC?

____Table 2 in 40 CFR 503.43

____Equation 6 in 40 CFR 503,43 (site-specific determination)

c. If Table 2 was used, identify the type of incinerator used as the basis:

____Fluidized bed with wet scrubber

____Fluidized bed with wet scrubber and wet electrostatic precipitator

____Other types with wet scrubber

____Other types with wet scrubber and wet electrostatic precipitator

d. If Equation 6 was used, provide the following:

Decimal fraction of hexavalent chromium concentration to total chromium concentration in stack exit gas: _____

Submit results of incinerator stack tests for hexavalent and total chromium concentrations, including date(s) of test, with this application.

E.8. Incinerator Parameters

a. Do you monitor Total Hydrocarbons (THC) in the sewage sludge incinerator's exit gas? _____ Yes _____ No

Do you monitor Carbon Monoxide (CO) in the sewage sludge incinerator's exit gas? _____ Yes _____ No

b. Incinerator type: _____

c. Incinerator stack height, in meters: _____

Indicate whether value submitted is: _____ Actual stack height _____ Creditable stack height

E.9. Performance Test Operating Parameters

a. Maximum Performance Test Combustion Temperature: _____

b. Performance test sewage sludge feed rate, in dry metric tons/day: _____

indicate whether value submitted is:

_____ Average use _____ Maximum design

Submit, with this application, supporting documents describing how the feed rate was calculated.

c. Submit, with this application, information documenting the performance test operating parameters for the air pollution control device(s) used for this sewage sludge incinerator.

E.10. **Monitoring Equipment.** List the equipment in place to monitor the following parameters:

a. Total hydrocarbons or carbon monoxide: _____

b. Percent oxygen: _____

c. Moisture content: _____

d. Combustion temperature: _____

e. Other: _____

E.11. **Air Pollution Control Equipment.** Submit, with this application, a list of all air pollution control equipment used with this sewage sludge incinerator.

_____

_____

_____

_____