

Region 6 Compliance Assurance and Enforcement Division

INSPECTION REPORT

Inspection Date(s):	08/03/2023 to 08/04/2023		
Media:	Water		
Regulatory Program(s)	NPDES		
Company Name:	ANGUS Chemical Company		
Facility Name:	Sterlington Plant		
Facility Physical Location:	350 Louisiana Highway 2 (32.693501, -92.078028)		
(city, state, zip code)	Town of Sterlington, LA 71280		
Mailing address:	ANGUS Chemical Company, 350 LA-2		
(city, state, zip code)	Town of Sterlington, LA 71280		
County/Parish:	Ouachita Parish		
Facility Contact:	Ms. Katie Davis	EH&S Delivery Specialist	
	318-665-5125 or mkdavis@angus.com		
FRS Number:	110002045867		
Identification/Permit Number:	LA0007854		
Media Number:	N/A		
NAICS:	221112		
SIC:	4911		
Personnel participating in inspection:			
Jack Arias	EPA Region-6 ECD-WA	Inspector	214-665-8164
Katie Davis	Sterlington Plant	EH&S Delivery Specialist	318-665-5125
Matt Simonton	Sterlington Plant	Senior EH&S Delivery	318-665-5283
EPA Lead Inspector Signature/Date	 JACK ARIAS Digitally signed by JACK ARIAS Date: 2023.12.11 09:19:09 -06'00'		
	{Jack Arias}		Date
Supervisor Signature/Date	 ESTEBAN HERRERA Digitally signed by ESTEBAN HERRERA Date: 2023.12.11 09:31:44 -06'00'		
	{Esteban Herrera}		Date

Section I – INTRODUCTION**PURPOSE OF THE INSPECTION**

EPA Region 6 inspectors, Jack Arias arrived at Sterlington Plant at 10:00 AM on August 03, 2023, for an announced inspection. I met with the Plant Environmental Coordinator, Ms. Katie Davis at the opening conference. I presented my credentials to Ms. Davis and informed her that this was an EPA inspection to determine the facility's compliance with the permit number LA0007854, the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES) water intakes and discharge regulations. The scope of the inspection included a compliance evaluation of the facility's site procedures, effluent limitations and monitoring requirements, CWA 316b cooling water intake structures and discharge processes, equipment, and pipes maintenance, 316b biomonitoring requirements, pollution prevention plan, management plan, and record keeping requirements of their permit. Following the opening conference, Ms. Davis and Mr. Simonton accompanied me for the entirety of the inspection and gave me a tour of the site in a company vehicle. The Closing Conference was held with Sterlington Chemical Company's representatives where I informed them of the results of the inspection and Areas of Concern.

FACILITY DESCRIPTION

The Sterlington Plant (facility) is located at 350 Highway 2 in Sterlington, Louisiana and its adjacent to the Ouachita River. The facility owns and operates a specialty organic chemical manufacturing plant that is in Sterlington, Louisiana. The plant is currently operating under Louisiana Pollutant Discharge Elimination System (LDEPS) Permit Number LA0007854 that was issue by the Louisiana Department of environmental Quality (LDEQ) on October 13, 2013, and became effective on December 1, 2013. The LDPS permit contains 316(b) requirements that are intended to reduce adverse environmental impacts, if any, caused by a facility's cooling water intake structure (CWIS). The facility must collect information and evaluate the environmental impacts of its CWIS by characterizing the fish/shellfish in the vicinity of the CWIS and assessing impingement mortality and entrainment. Impingement occurs when fish/shellfish are entrapped on the outer part of the CWIS or against a screening device. Entrainment occurs when fish/shellfish pass through a CWIS and enter the cooling water system. The plant withdraws surface water from the Ouachita River by one CWIS that consist of two 5,000 gallon per minute (GPM) water intake pumps located on the water intake dock. The CWIS is located on the left descending bank of the Ouachita River where the river is channelized and lined with development activity. The CWIS is located just south of Mile Marker 192. The CWIS dock extends approximately 250 feet over herbaceous habitat and additional 65 feet over shallow channel border habitat. The two water intake pumps are aligned in a row parallel to the shoreline and are located 65 feet from the shoreline. While the intake screen may emerge above the water surface during extremely low-water conditions, the average depth of the water above intake screens is approximately 20 feet. The water intake pumps are located approximately 2 feet above the river bottom within a concrete enclosure. The CWIS consisting of a single 6 feet by 6 feet screen that is covered by a 14-gauge steel mesh with openings measuring $\frac{1}{2}$ inch by $\frac{1}{2}$ inch. Water passes through the screen into a forebay that distributes water to either of two intake pumps, which transfer the water to a

holding pond located on the facility grounds. From there, it is further distributed for colling water, process water, and other water needs.

Section II - OBSERVATIONS

Outfall 002:

According to the permit effluent limitations and monitoring requirements, the outfall 002 will monitor potential contamination and low volume of treated process wastewater, process and non-process area stormwater, utility wastewater including, but not limited to cooling tower and boiler blowdown, miscellaneous non-process wastewater, sanitary wastewater, and hydrostatic wastewater. Also, there shall be no discharge of floating or settleable solids or visible foam in other than trace amounts, nor of free oil or other oil materials, nor of toxic materials in quantities such as to cause acute toxicity to aquatic organism. I observed floating solids and visible foam material in large quantities. This is situated after the exit of the final filter and before discharge into the Ouachita River. Also, we visited the discharge point at the Ouachita River and there was not active discharge happening at the time of the inspection. During the inspection, we met a citizen (property located near the discharge point) that mentioned that he saw foam material coming from the discharge point to Ouachita River, but at the time of the inspection there was not active discharge happening at the time of the inspection (See Photo Nos. 33 in Appendix 1). Also, the monitoring and sampling point of discharge at outfall 002 and at the biotreatment plant discharge line are not illustrated clearly on the permit and waterflow diagram. Similarly, I observed algae formation at the discharge area from the biotreatment plant before discharge into the Ouachita River (See Photo No. 32 in Appendix 1). Algae accumulation and discharges of wastewater from these units could alter the treatment and control process to achieve compliance and impact the analysis and sampling results from biomonitoring activities and chemical specific limit from outfall 002 (See Photo No. 34 in Appendix 1).

Outfall 005:

I observed that the impoundment area is connected to outfall 005. The impoundment area shows confined vegetation and large algae formations on surface water. Confined vegetation and algae formation could promote bacteria growth and impact operations, composition of wastewater, and impact aquatic life (See Photo Nos. 4 – 6 in Appendix 1). The water intake comes from Ouachita River, and the wastewater discharge return to Ouachita River. The wastewater comes from the clarifier underflow process (including ultrafiltration reject/cleaning) and water supply treatment wastewater process (reverse osmosis reject/cleaning and/or demineralizer backwash/regeneration wastewater). Also, according to the permit, the quantity and types of all coagulants used in the intake raw river water treatment clarification system during the sampling month shall be recorded.

Outfall 001:

According to the effluent limitations and monitoring requirements that illustrate samples data and pH taken of Outfall 001 on the permit, facility should monitor discharges and is authorized to discharge non-process area stormwater, river water overflow, and miscellaneous de minimis non-process wastewater.

Outfall 004:

According to the effluent limitations and monitoring requirements that illustrate monitored hydrostatic test water from internal outfall 401 and the samples taken of Outfall 004 on the permit, facility is authorized to discharge non-process runoff; miscellaneous non-process and utility wastewater; and previously monitored hydrostatic test wastewater from internal outfall 401.

I observed that the gate of outfall 004 was open and contained fluids (See Photo Nos. 16 – 17 in Appendix 1). Facility needs to maintain the gate close to avoid any combination of wastewater from the Sterlington Ditch with non-process runoff; miscellaneous non-process and utility wastewater; and hydrostatic test wastewater from internal outfall 401.

Outfall 401:

According to the effluent limitations and monitoring requirements (update wastewater flow diagrams, toxicity data for additives, description of discharge volumes, and reports of sampling methodologies and locations) of Outfall 401 on the permit, facility is authorized to discharge hydrostatic test wastewater. I observed that the current Water/Wastewater Flow Balance Diagram does not specify the location of outfall 401. Also, the facility does not show a sing or location for outfall 401 at the wastewater facility.

Outfall 102:

According to the effluent limitations and monitoring requirements that illustrate the samples taken of Outfall 102 on the permit, facility is authorized to discharge continuous treated sanitary wastewater.

316b Cooling Water Intake Structure (CWIS):

According to the permit, facility intake structure feeds into a cooling system that meet the definition of a close cycle recirculating system (See Photo Nos. 18 – 19 in Appendix 1). Therefore, facility will monitor and report the cycles of concentration to ensure the chosen technology is maintained and operated to function as designed. Pumps intake water from Ouachita River are connected to outfall 005. During the inspection, I observed vegetation growth around pumps, inactivity of one pump, and standing water at the bottom base structure of inactive pump (standing water could promote growth of bacteria) (See Photo Nos. 1 – 3 in Appendix 1). The intake process has an internal impoundment area that receive and store the water intake from Ouachita River. I observed that the impoundment area confined vegetation and algae formation on surface water. These formations could impact the closed cycle recirculating system, the composition of wastewater discharge, and consequently produce adverse environmental impacts (AEI) and impact aquatic life. (See Photo Nos. 4 – 6 in Appendix 1). Facility needs to improve visual and remote inspections over the intake process to ensure that technology is maintained and operated to function as designed and to comply with 40 CFR 125.94.

Containment Drain Valve G-45 Tank:

The facility shall take reasonable steps to minimize or prevent any discharge, sludge formations, and disposal. Also, facility shall maintain all facilities and systems to achieve compliance with the conditions of the permit. During the inspection, I observed sludge and algae formations around G-45 tank. These sludge and algae formations are connected to G-45 drain containment valve. This valve discharges into

the stormwater system connected to outfall 004. These sludge and algae formations may impact the discharge to outfall 004 and may enter water of the states and produce adverse environmental impacts (AEI) (See Photo Nos. 8 – 9 in Appendix 1).

Boiler 6 and 7 Conditions:

The facility shall take reasonable steps to minimize or prevent any discharge and disposal of wastewater. Also, facility shall maintain all facilities and systems to achieve compliance with the conditions of the permit. During the inspection, I observed two continuous leaks of wastewater connected with the wastewater pipe and boilers 6 and 7 blowdown pipe. These lack of preventive maintenance of the leaks may impact the integrity of the process and lead to upset conditions. Also, these leaks of wastewater may impact the discharge into the stormwater system connected to outfall 004 and may produce adverse environmental impacts (AEI) (See Photo Nos. 10 - 12 in Appendix 1).

XT-40 Tank:

The facility shall maintain all facilities and systems to achieve compliance with the conditions of the permit. During the inspection, I observed water accumulation and vegetation growth inside the containment area of tank TX-40. This lack of preventive maintenance may impact the discharge into the stormwater system connected to outfall 004 and may produce adverse environmental impacts (AEI) (See Photo No14 in Appendix 1).

Sump or Settling Basin Area (Wastewater Treatment Plant):

According to the permit section B (Proper Operation and Maintenance), the facility shall take reasonable steps to minimize or prevent any discharge and disposal of wastewater. Also, facility shall maintain and operate to function as design in all facilities and systems to achieve compliance with the conditions of the permit. During the inspection, I observed formation of algae, sediments, and debris in the wastewater contained in the settling based area. The lack of preventive maintenance of this area may impact the integrity of the basin area, wastewater clarification, and treatment. Also, these deficiencies may impact the wastewater discharge's operation going to outfall 102 and outfall 002. (See Photo No. 15 and 20 in Appendix 1).

Waste Disposal Wells (Wastewater Treatment Plant):

During the inspection, I observed two injections wells near the settling area and cooling tower #6. To understand the injection process and the composition of wastewater injected into the UIC system, facility need to describe the LDRN annual report and integrity test requirements (See Photo No. 21 in Appendix 1).

Sodium Hypochlorite Tank:

During the inspection, I observed that the Sodium Hypochlorite Tank is near to the sump basin area and stormwater area. Facility needs to reinforce the secondary containment wall around tank to prevent impact on stormwater runoff and sump area (See Photo No. 22 in Appendix 1).

Storm Water Runoff:

The purpose of the pollution prevention plan is to identify potential sources of pollution that could affect the quality of storm water and identifies the practices that will be used to prevent or reduce the pollutants in stormwater discharges. During the inspection, I observed at the north fence area of the facility (near entrée gate) marks of stormwater runoff coming from inside the facility and exiting the facility directly into an external channel connected with Ouachita River (See Photo Nos. 23 Appendix 1).

Wastewater Treatment Plant:

According to the permit section B, the facility shall take reasonable steps to minimize or prevent any discharge and maintain and operate all facilities and system of treatment and control which are installed or used by the facility to achieve compliance with the conditions of the permit. Any lack of preventive maintenance may impact the integrity of the wastewater systems, treatments, and discharge. Also, these may impact the discharge to outfall 002:

1. East and West Equalization Basins:

During the inspection, I observed accumulation of sediments and debris inside both equalization basins. Also, I observe that the facility added wood panels and gravel around the basins to reinforced and contained wastewater (See Photo Nos. 25 – 26 in Appendix 1).

2. Aeration Basins:

During the inspection, I observed that the wastewater facility contained two aeration basins (#1 and #2). **Aeration basin #1** showed accumulation of sediment inside its perimeter (See Photo No. 27 in Appendix 1). **Aeration basin #2** showed large accumulation of sediments, several dry areas, vegetation growing over sediments, and was mostly cover with a flexible cover (See Photo No. 28 in Appendix 1). Also, basin #2 showed that its capacity to hold fluids and sediments is nearly completed and near the stormwater area to Ouachita River (See Photo No. 29 in Appendix 1). The lack of preventive maintenance could impact the integrity of the basin, wastewater treatment system, and result in an overflow that could directly impact the storm water system treatment and discharge connected to outfall 002 and may produce adverse environmental impacts (AEI) around the treatment plant boundary.

3. Sludge Waste Basin:

I observed that the sludge waste basin is full of sediments. This area collects undesirable sediments. Facility needs to maintain and clean the basin to guaranty holding capacity of sediment accumulation from treatment process (See Photo No. 30 in Appendix 1).

4. 40 Clarifier 14x40:

I observed that the clarifier system was not working properly. The scraper blade did not move and separate aggregated materials (oil, grease, and sediments). Consequently, materials were accumulating and were not remove from system (See Photo No. 31 in Appendix 1).

Composite sampling:

The objective of the composite samples is to identify potential causes of toxicity, help to reduce toxicity, help to evaluate the effectiveness of toxicity control options, and confirm that toxicity has been reduced or eliminated. This sampling process is part of the biomonitoring requirements that is intended to define a framework for complying with permit and waste discharge requirements. To better understand the facility biomonitoring activities, manual collection of aliquots, and improve the toxicity's reporting process, the facility needs to describe methodologies and procedures of composite sampling for biomonitoring activities at outfalls 002, 004, 005, 001, 401, and 102.

Method Detection Limit (MDL) 40 CFR 136:

To better understand the 2022 excursions at outfall 002, 004, and 005, the MDL established by the facility and some of the toxicity results on the TRE results, facility shall describe the MDL report that indicate QA/QC documentation, analytical results (non-conventional, metals, volatile compounds, acids, based/neutral compounds, and pesticides), and calculations of the MDL.

316B Requirements:

- ✚ Facility needs to demonstrate that they fulfill requirements and compliance with the effluents limitations and monitoring requirements specified for discharges in accordance with clean water act 316b.
- ✚ According to the permit in 316b, stormwater, and outfall interim and final limitations, facility shall describe a report information within 2 and 3 years from the effective day of the permit for stormwater and outfall 002 (2021 and 2022). Facility showed incursions on 2022 and a potential reassessment may need to be established to comply with CWA 316b requirements.
- ✚ Also, the permittee shall describe failures that could potentially contribute to the storm water discharges, compliance with Storm Water Pollution Plan (SWP3) and identify incidents of noncompliance.

Clean water Act 316b cooling Water Intake Structures (CWIS):

- ✚ Facility needs to demonstrate that they fulfill CWIS requirements and compliance with the effluents limitations and monitoring requirements. According to 40 CFR 125.97 facility shall explain monitoring results (part of the annual report) for 2020, 2021, 2022, and 2023. These results should include facility's intake flow monitoring information, cycles of concentration data, visual inspections, remote monitoring activities, any supplemental information developed during compliance monitoring, and certifications of maintenance and operations of the water intake structures. Also, it should include modifications or inactivity of structures that could impact the cooling waters intake and operations.
- ✚ Also, facility needs to incorporate information that illustrate the procedures to minimized impingement mortality and entrainment of aquatic organism according to 40 CFR 125.94 BAT standards (best management practices, adverse environmental impacts, and cycles of concentration data). This information is part of the 316b requirements and information that illustrated change in conditions, operations, and waterbodies must be provided 2 years and 6 months prior to the permit expiration.

316b Toxicity Reduction Evaluation (TRE):

- ✚ Facility demonstrated sublethal toxicity effects in 2022. Facility shall explain the corrective actions and TRE plan that described the scientific approach and methodologies to be using in performing the TRE test from 2022 and 2023.
- ✚ Also, facility needs to describe and explain the dilution of water methodology used for TRE test (TRE conducted on effluents discharges to receiving waters or discharges where not receiving waters are available).
- ✚ Also, according to the permit, facility needs to explain the final report of TRE results after 28 months of confirming sub lethality in the retest which will clarify information pertaining to the specific control mechanism that may comply with the biomonitoring requirements and chemical specific limits.

Section III – AREAS OF CONCERN

The following Areas of Concern were observed during the Inspection and follow-up conversations discussed with Jason Katie Davis and Matt Simonton:

1. Failure to manage floating solids and visible foam material; inactivity of discharge; and algae accumulation at the final filter and before discharge into the Ouachita River (requirement prescribed in Part I of Outfall 002 requirements, on page 4 to 9 of 14).
2. Failure to manage algae formations and provide records that illustrate quantity and type of coagulants for 2019, 2020, 2022, and 2023 (requirement prescribed in Part I of Outfall 005 requirements, on page 14 of 14)
3. Failure to submit reports for 2019, 2020, 2021, 2022, and 2023 that illustrate the samples data and pH taken to follow the monitoring requirements of the permit (requirement prescribed in Part I of Outfall 001 requirements, on page 3 of 14).
4. Failure to submit information (2019, 2020, 2021, 2022, and 2023) that illustrate monitored hydrostatic test water from internal outfall 401 and the samples taken to follow the monitoring requirements on the permit (requirement prescribed in Part I of Outfall 004 requirements, on page 11 of 14).
5. Failure to updated diagram that illustrate outfall 401 and to submit reports that include toxicity data for additives proposed/used in the test water, description of proposed/used discharge including volumes of wastewater and additive levels in the wastewater, the sampling methodology at outfall 401 and a diagram that will identify the sampling location, and updates in the permit (requirement prescribed in Part I of Outfall 401 requirements, on page 12 and 13 of 14).
6. Failure to submit reports for 2019, 2020, 2021, and 2022 that illustrate the samples taken to follow the monitoring requirements on the permit (requirement prescribed in Part I of Outfall 102 requirements, on page 10 of 14).
7. Failure to submit the annual certifications and reports for 2019, 2020, 2021, 2022, and 2023 including records of visual or remote inspections, intake flow/cycles of concentration data, certifications of maintenance and performance (BMPs); and information about any significant modification that could change the cooling water withdrawals and operations (requirement prescribed in Part II CWA 316b Cooling Water Intake Structure (CWIS) requirements, on page 16, 17, and 18 of 29).

8. Failure to submit reports for 2022, and 2023 that illustrate maintenance of sludge and algae formations around G-45 (requirement prescribed in Part III Section B. Proper Operation and Maintenance requirements, on page 3 of 18)
9. Failure to submit reports for 2022, and 2023 (Boiler 6 and 7 Conditions) that illustrate steps to minimize or prevent any discharge and disposal of wastewater and maintain systems to achieve compliance with the conditions of the permit (requirement prescribed in Part III Section B. Proper Operation and Maintenance requirements, on page 3 of 18)
10. Failure to submit reports for 2022 and 2023 that illustrate maintenance of water accumulation and vegetation growth inside the containment area of tank TX-40 (requirement prescribed in Part III Section B. Proper Operation and Maintenance requirements, on page 3 of 18).
11. Failure to maintain and remove algae formations, sediments, and debris at the settling based area (requirement prescribed in Part III Section B. Proper Operation and Maintenance requirements, on page 3 of 18).
12. Failure to submit the LDNR annual report and injection's integrity test report for 2021, 2022, and 2023 to understand the injection process and the composition of wastewater injected into the UIC system (requirement prescribed in Part III Section B. Proper Operation and Maintenance requirements, on page 3 of 18).
13. Failure to manage the secondary containment wall around Sodium Hypochlorite Tank to prevent impacts on stormwater runoff and sump area (requirement prescribed in Part III Section B. Proper Operation and Maintenance requirements, on page 3 of 18).
14. Failure to submit visual and annual inspection reports to identify areas that could contribute to the storm water discharge, describe procedures to reduce potential pollutants loadings and potential equipment failure, and other circumstances that could impact surface waters to outfall 004 and outfall 102 (requirement prescribed in Part II Other Requirements Section L. Stormwater Discharges requirements, on page 10 and 11 of 29).
15. Failure to submit reports (2021, 2022, and 2023) and information that illustrate reasonable steps to minimize any discharge, maintain, and operate systems of treatment and control used at the wastewater treatment plant to achieve compliance with conditions of the permit connected with the equalization basins, aeration basins, sludge waste basins, and clarifier 14x40 (requirement prescribed in Part III Section B. Proper Operation and Maintenance requirements, on page 3 of 18).
16. Failure to submit methodologies and procedures of composite sampling for biomonitoring activities at outfalls 002, 004, 005, 001, 401, and 102. Also, failure to submit a sampling diagram and a detail methodology for sampling and discharge procedures at outfalls (requirement prescribed in Part II Section 3.d Toxicity Testing Conditions and 4a Reporting, on page 23 and 24 of 29).
17. Failure to submit the MDL report that indicate QA/QC documentation, analytical results (non-conventional, metals, volatile compounds, acids, based/neutral compounds, and pesticides), and calculations of the MDL (requirement prescribed in Part II Section J. 316(b) Requirements and Section 6 Toxicity Reduction Evaluation requirements, on page 9 and 26 to 29 of 29).
18. Failure to submit first annual reports (2019, 2020, 2021, 2022, and 2023); report information within 2 and 3 years from the effective day of the permit for stormwater and outfall 002 (2021 and 2022); reports (2020, 2021, 2022, and 2023) about the annual inspection report that identify areas or failures that could potentially contribute to the stormwater discharges, to comply with Storm Water Pollution Plan (SWP3), and identify incidents of noncompliance (requirement prescribed in Part II Section J. 316(b) requirements and Section L. Stormwater Discharges requirements, on page 9, 10, and 11 of 29).

19. Failure to submit summary report of results (part of the annual report) for 2020, 2021, 2022, and 2023 that should include facility's intake flow monitoring information, cycles of concentration data, visual inspections, remote monitoring activities, any supplemental information developed during compliance monitoring; certifications of maintenance and operations of the water intake structures and modifications or inactivity of structures that could impact the cooling waters intake and operations; information that illustrate procedures to minimized impingement mortality and entrainment of aquatic organism according to 40 CFR 125.94 BAT standards (requirement prescribed in Part II Section J. 316(b) requirements and Section L. Stormwater Discharges requirements, on page 9, 10, and 11 of 29).

Section IV – FOLLOW UP

-  EPA will provide a copy of the inspection report and held different meetings to discuss inspection report results, observations, and potential corrective actions.
-  EPA will submit a Notice of potential Violation and opportunity to Confer (NOPVOC) to acquire proper information and correct concerns at the facility.
-  Facility will provide and discuss information connected with areas of concern.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 34 photos taken 08/03/2023 to 08/04/2023.

Appendix 2 – 4 diagrams 08/03/2023 to 08/04/2023.

Appendix 1

Photograph Log and

Significant Photo Locations



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 1

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4885.JPG

Date of Photograph: 08/03/2023

Latitude and Longitude: -92.086250°, 32.693545°

Orientation: W

Map Datum: WGS-84

Time of Photo: 12:42 PM

Photographer: Jack Arias

Description: This image shows the entrance to the 316(b)-cooling intake structure and pumps.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 2

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4886.JPG
Date of Photograph: 08/03/2023
Latitude and Longitude: -92.086974°, 32.693761°
Orientation: W
Map Datum: WGS-84
Time of Photo: 12:58 PM
Photographer: Jack Arias
Description: This image shows vegetation growth around the cooling intake structure's pumps.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 3

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4889.JPG
Date of Photograph: 08/03/2023
Latitude and Longitud: -92.086974°, 32.693761°
Orientation: W
Map Datum: WGS-84
Time of Photo: 1:03 PM
Photographer: Jack Arias
Description: This image shows standing water at the bottom base structure of one of the cooling intake structure's pumps. This pump is inactive.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 4

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4897.JPG

Date of Photograph: 08/03/2023

Latitude and Longitude: -92.083967°, 32.693564°

Orientation: E

Map Datum: WGS-84

Time of Photo: 10:25 AM

Photographer: Jack Arias

Description: This image shows an impoundment area confining vegetation and algae on surface water. This area is part of the cooling intake structure and outfall 005 system.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 5

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4899.JPG

Date of Photograph: 08/03/2023

Latitude and Longitude: -92.083967°, 32.693564°

Orientation: E

Map Datum: WGS-84

Time of Photo: 1:32 AM

Photographer: Jack Arias

Description: This image shows an impoundment area confining vegetation and algae on surface water. This area is part of the cooling intake structure and outfall 005 system.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 6

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4912.JPG

Date of Photograph: 08/03/2023

Latitude and Longitude: -92.084385°, 32.693040°

Orientation: E

Map Datum: WGS-84

Time of Photo: 1:59 PM

Photographer: Jack Arias

Description: This image shows the water-cooling intake process. The water intake is discharge into the impoundment area. This area is connected to outfall 005 system.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 7

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4920.JPG
Date of Photograph: 08/03/2023
Latitude and Longitude: -92.084646°, 32.693074°
Orientation: SE
Map Datum: WGS-84
Time of Photo: 2:13 PM
Photographer: Jack Arias
Description: This image shows outfall 005 system.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 8

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4905.JPG

Date of Photograph: 08/03/2023

Latitude and Longitud: -92.083530°, 32.693451°

Orientation: SE

Map Datum: WGS-84

Time of Photo: 1:46 PM

Photographer: Jack Arias

Description: This image shows sludge and algae formations around G-45 tank. These sludge and algae formations are connected to G-45 drain containment valve. This valve discharges into the stormwater system connected to outfall 004.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 9

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4906.JPG

Date of Photograph: 08/03/2023

Latitude and Longitude: -92.083537°, 32.693346°

Orientation: SE

Map Datum: WGS-84

Time of Photo: 1:46 PM

Photographer: Jack Arias

Description: This image shows sludge and algae formations around G-45 tank. These sludge and algae formations are connected to G-45 drain containment valve. This valve discharges into the stormwater system connected to outfall 004.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 10

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4929.JPG
Date of Photograph: 08/03/2023
Latitude and Longitud: -92.084085°, 32.690186°
Orientation: S
Map Datum: WGS-84
Time of Photo: 3:00 PM
Photographer: Jack Arias
Description: This image shows a leak on a wastewater pipe near boilers 6 And 7.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 11

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4930.JPG
Date of Photograph: 08/03/2023
Latitude and Longitud: -92.084085°, 32.690186°
Orientation: S
Map Datum: WGS-84
Time of Photo: 3:00 PM
Photographer: Jack Arias
Description: This image shows wastewater accumulation under the pipe leak near boilers 6 And 7.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 12

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4932.JPG
Date of Photograph: 08/03/2023
Latitude and Longitud: -92.084085°, 32.690186°
Orientation: S
Map Datum: WGS-84
Time of Photo: 3:05 PM
Photographer: Jack Arias
Description: This image shows a leak from boilers 6 and 7 blowdown pipe.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 13

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4934.JPG
Date of Photograph: 08/03/2023
Latitude and Longitud: -92.087204°, 32.689748°
Orientation: W
Map Datum: WGS-84
Time of Photo: 3:22 PM
Photographer: Jack Arias
Description: This image shows outfall 001 system.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 14

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4939.JPG

Date of Photograph: 08/03/2023

Latitude and Longitud: -92.086174°, 32.690654°

Orientation: W

Map Datum: WGS-84

Time of Photo: 3:30 PM

Photographer: Jack Arias

Description: This image shows water accumulation and vegetation growth inside the containment area of tank TX-40.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 15

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4942.JPG
Date of Photograph: 08/03/2023
Latitude and Longitud: -92.079616°, 32.691198°
Orientation: NE
Map Datum: WGS-84
Time of Photo: 3:43 PM
Photographer: Jack Arias
Description: This image shows formation of algae, sediments, and debris in the wastewater contained in the settling based area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 16

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4944.JPG
Date of Photograph: 08/03/2023
Latitude and Longitud: -92.079670°, 32.691089°
Orientation: NE
Map Datum: WGS-84
Time of Photo: 3:46 PM
Photographer: Jack Arias
Description: This image shows outfall 004 system. The gate is open and contained fluids.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 17

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4946.JPG
Date of Photograph: 08/03/2023
Latitude and Longitude: -92.078902°, 32.691019°
Orientation: NE
Map Datum: WGS-84
Time of Photo: 3:54 PM
Photographer: Jack Arias
Description: This image shows the discharge channel for outfall 004.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 18

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4951.JPG

Date of Photograph: 08/03/2023

Latitude and Longitude: -92.078801°, 32.692526°

Orientation: NE

Map Datum: WGS-84

Time of Photo: 7:56 AM

Photographer: Jack Arias

Description: This image shows facility intake structure that feeds into a cooling system that meet the definition of a close cycle recirculating system.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 19

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4955.JPG

Date of Photograph: 08/03/2023

Latitude and Longitude: -92.078801°, 32.692526°

Orientation: NE

Map Datum: WGS-84

Time of Photo: 7:59 PM

Photographer: Jack Arias

Description: This image shows facility intake structure that feeds into a cooling system that meet the definition of a close cycle recirculating system.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 20

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4957.JPG

Date of Photograph: 08/03/2023

Latitude and Longitude: -92.079029°, 32.692116°

Orientation: NE

Map Datum: WGS-84

Time of Photo: 7:59 AM

Photographer: Jack Arias

Description: This image shows the sludge waste basin area that collect undesirable liquids such as water or chemicals and manage surface runoff water or wastewater.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 21

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Ouachita Parish	State: Louisiana



Photograph File Name: IMG_4963.JPG
Date of Photograph: 08/03/2023
Latitude and Longitude: -92.079238°, 32.691162°
Orientation: E
Map Datum: WGS-84
Time of Photo: 8:08 AM
Photographer: Jack Arias
Description: This image shows an injection well No.1 near the settling area and cooling tower #6.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 22

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4966.JPG
Date of Photograph: 08/03/2023
Latitude and Longitude: -92.079227°, 32.692010°
Orientation: NE
Map Datum: WGS-84
Time of Photo: 8:13 AM
Photographer: Jack Arias
Description: This image shows the Sodium Hypochlorite Tank near to the sump basin area and stormwater area.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 23

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4983.JPG
Date of Photograph: 08/03/2023
Latitude and Longitude: -92.080203°, 32.694191°
Orientation: N
Map Datum: WGS-84
Time of Photo: 10:00 AM
Photographer: Jack Arias
Description: This image shows boilers 6 and 7.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 24

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4991.JPG
Date of Photograph: 08/04/2022
Latitude and Longitud: -92.113929°, 32.660463°
Orientation: S
Map Datum: WGS-84
Time of Photo: 10:21 AM
Photographer: Jack Arias
Description: This image shows outfall 102 system.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 25

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4996.JPG

Date of Photograph: 08/04/2023

Latitude and Longitude: -92.113393°, 32.660945°

Orientation: S

Map Datum: WGS-84

Time of Photo: 10:24 PM

Photographer: Jack Arias

Description: This image shows accumulation of sediments and debris inside both equalization basins that are part of the wastewater treatment plant. Also, it shows wood panels and gravel around the basins to reinforced and contained wastewater.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 26

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4994.JPG

Date of Photograph: 08/04/2023

Latitude and Longitude: -92.113815°, 32.660807°

Orientation: S

Map Datum: WGS-84

Time of Photo: 10:22 AM

Photographer: Jack Arias

Description: This image shows accumulation of sediments and debris inside both equalization basins that are part of the wastewater treatment plant. Also, it shows wood panels and gravel around the basins to reinforced and contained wastewater.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 27

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_4999.JPG

Date of Photograph: 08/04/2023

Latitude and Longitud: -92.114466°, 32.660572°

Orientation: S

Map Datum: WGS-84

Time of Photo: 10:26 AM

Photographer: Jack Arias

Description: This image shows the Aeration basin #1 with an accumulation of sediment inside its perimeter.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 28

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_5007.JPG

Date of Photograph: 08/04/2023

Latitude and Longitude: -92.115453°, 32.660295°

Orientation: S

Map Datum: WGS-84

Time of Photo: 10:29 PM

Photographer: Jack Arias

Description: This image shows the Aeration basin #2 with large accumulation of sediments, several dry areas, vegetation growing over sediments, and cover with a flexible cover.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 29

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_5010.JPG

Date of Photograph: 08/04/2023

Latitude and Longitude: -92.116433°, 32.661379°

Orientation: SW

Map Datum: WGS-84

Time of Photo: 10:32 PM

Photographer: Jack Arias

Description: This image shows that basin #2 holding capacity of fluids and sediments is nearly completed and near the stormwater area to Quachita River.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 30

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_5012.JPG
Date of Photograph: 08/04/2023
Latitude and Longitude: -92.116740°, 32.661012°
Orientation: SW
Map Datum: WGS-84
Time of Photo: 10:34 AM
Photographer: Jack Arias
Description: This image shows the sludge waste basin full of sediments.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 31

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_5048.JPG

Date of Photograph: 08/04/2023

Latitude and Longitude: -92.114861°, 32.662422°

Orientation: SW

Map Datum: WGS-84

Time of Photo: 11:14 PM

Photographer: Jack Arias

Description: This image shows that the scraper blade is not moving and separating aggregated materials (oil, grease, and sediments). This is part of the 40 clarifier 14x40.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 32

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_5018.JPG

Date of Photograph: 08/04/2023

Latitude and Longitude: -92.115306°, 32.662304°

Orientation: SW

Map Datum: WGS-84

Time of Photo: 10:42 AM

Photographer: Jack Arias

Description: This image shows algae formation at the discharge area from the biotreatment plant before discharge into the Quachita River.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 33

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_5046.JPG

Date of Photograph: 08/04/2023

Latitude and Longitude: -92.115349°, 32.662375°

Orientation: SW

Map Datum: WGS-84

Time of Photo: 11:11 AM

Photographer: Jack Arias

Description: This image shows floating solids and visible foam material in large quantities. This is situated after the exit of the final filter and before discharge into the Quachita River.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Photograph Log

Photo No. 34

350 Louisiana Highway 2 in Sterlington (32.693501, -92.078028)		
Sterlington	County: Quachita Parish	State: Louisiana



Photograph File Name: IMG_5040.JPG
Date of Photograph: 08/04/2023
Latitude and Longitud: 32.704365, -93.95982
Orientation: SW
Map Datum: WGS-84
Time of Photo: 11:07 AM
Photographer: Jack Arias
Description: This image shows discharge area for outfall 002.

Appendix 2

Photo No.1 Wastewater Flow

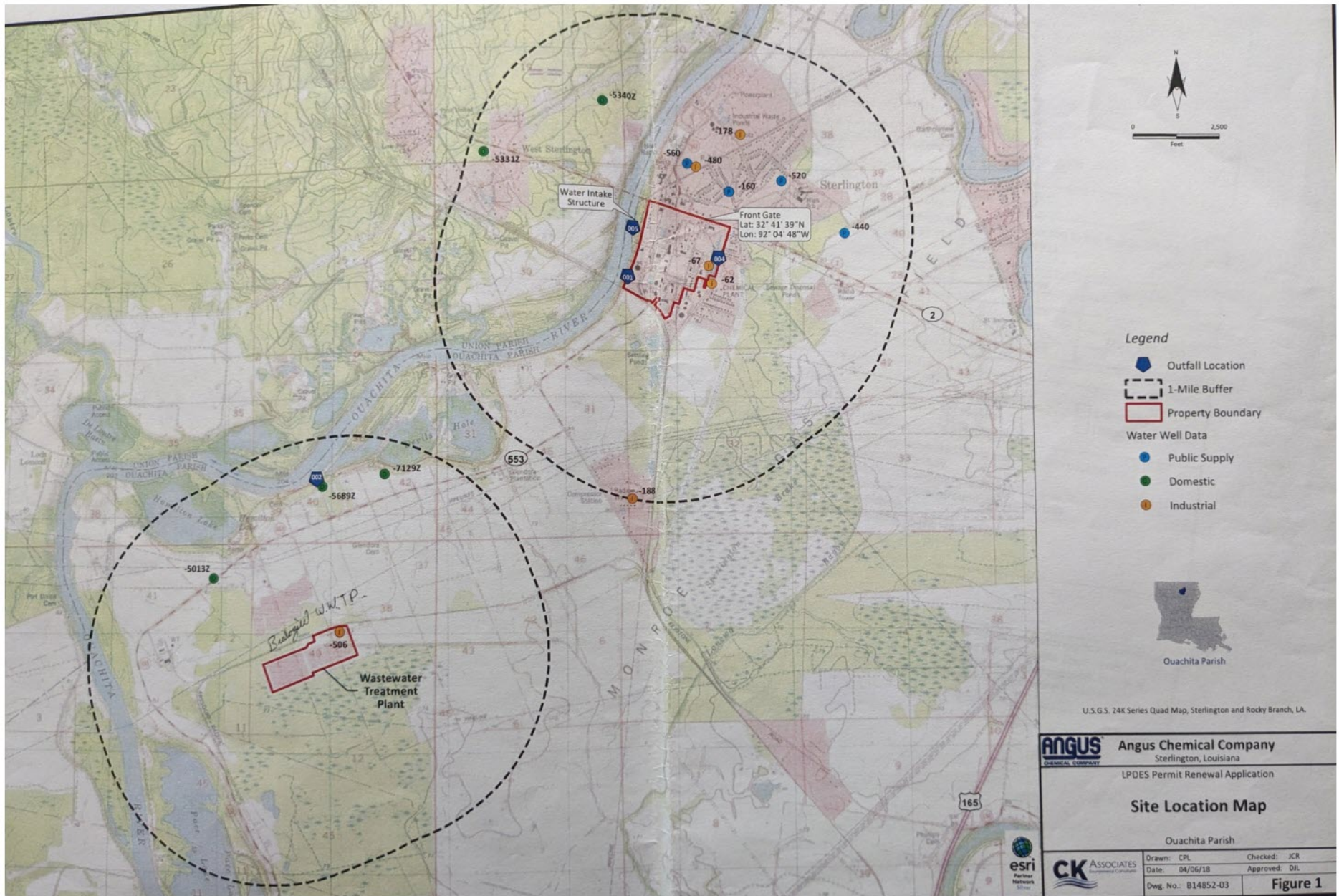


Photo No. 2 Wastewater Treatment Plant Map

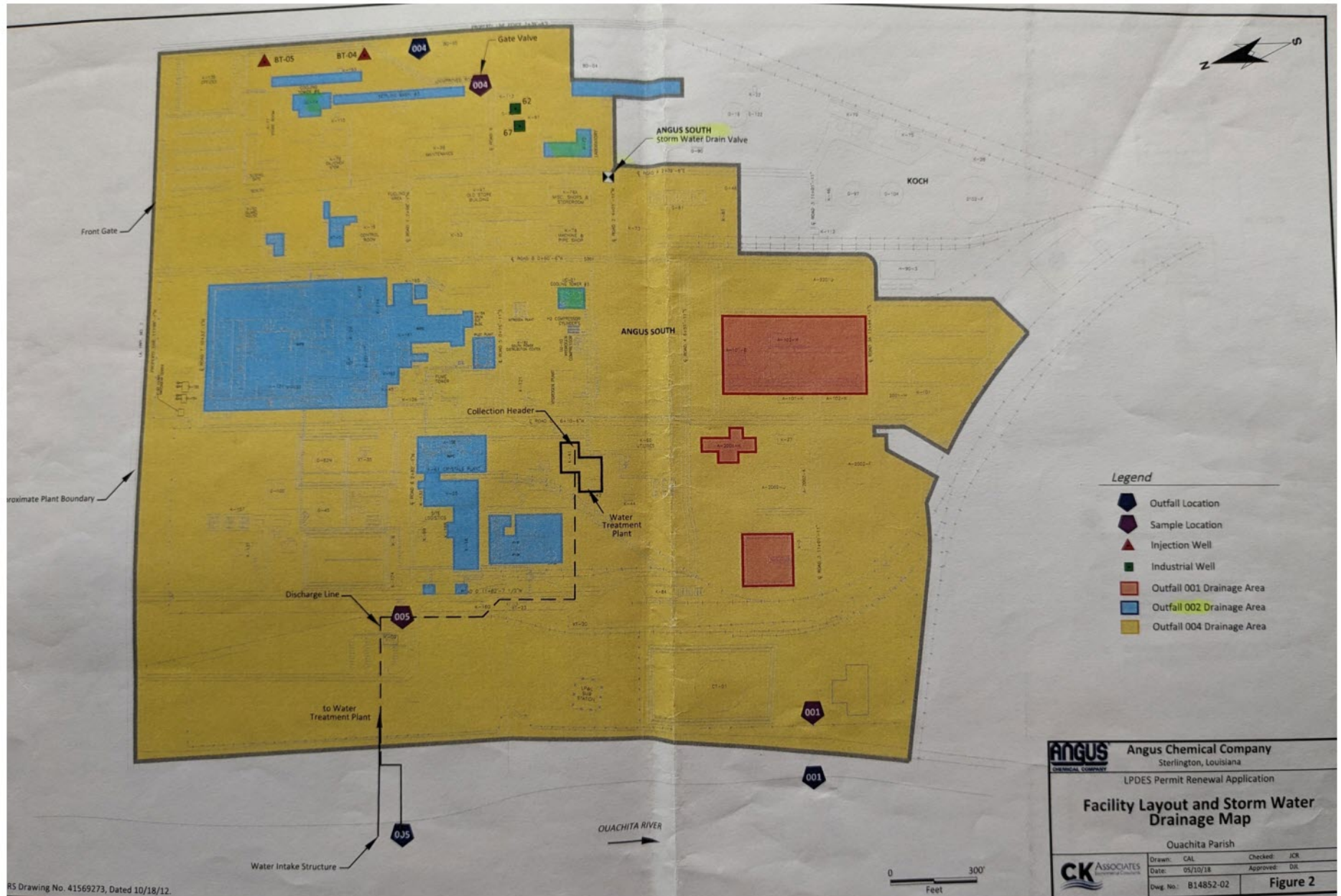


Photo No. 2

Wastewater Treatment Plant Map

