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OCT 2 8 2025

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MR. MICHAEL CLOSSON MILL MANAGER INTERNATIONAL PAPER - RIVERDALE 601 COUNTY ROAD 78 SELMA. AL 36703

RE: REVISED DRAFT PERMIT

NPDES PERMIT NUMBER AL0003018

Dear Mr. Closson:

Transmitted herein is a revised 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.

Our records indicate that you have utilized the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs). The Department transitioned from the E2 Reporting System to the Alabama Environmental Permitting and Compliance System (AEPACS) for the submittal of DMRs on November 15, 2021. AEPACS is an electronic system that allows facilities to apply for and maintain permits as well as submit other required applications, registrations, and certifications. In addition, the system allows facilities to submit required compliance reports or other information to the Department. The Department has used the E2 User account information to set up a similar User Profile in AEPACS based on the following criteria:

- 1. The user has logged in to E2 since October 1, 2019; and
- The E2 user account is set up using a unique email address.

E2 users that met the above criteria will only need to establish an ADEM Web Portal account (https://prd.adem.alabama.gov/awp) under the same email address as their E2 account to have the same permissions in AEPACS as they did in E2. They will also automatically be linked to the same facilities they were in E2.

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.

If you have questions regarding this permit or monitoring requirements, please contact Victoria Kim by e-mail at victoria.kim @adem.alabama.gov or by phone at (334) 271-7895.

Sincerely,

Scott Jackson, Chief Industrial Section

Industrial/Municipal Branch

Water Division

Enclosure:

Draft Permit

pe via website:

Montgomery Field Office

EPA Region IV

U.S. Fish & Wildlife Service AL Historical Commission

Advisory Council on Historic Preservation

Department of Conservation and Natural Resources





PERMITTEE:



# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

INTERNATIONAL PAPER - RIVERDALE

FACILITY LOCATION:	INTERNATIONAL PAPER – RIVERDALE 601 COUNTY RD 78 SELMA, ALABAMA 36703 DALLAS COUNTY
PERMIT NUMBER:	AL0003018
RECEIVING WATERS:	DSN002, DSN003 – ALABAMA RIVER DSN004 – DSN006 – UNNAMED TRIBUTARY TO ALABAMA RIVER
"FWPCA"), the Alabama Water Pethe Alabama Environmental Manag	the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the collution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA") gement Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulation further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to exceiving waters.
ISSUANCE DATE:	
EFFECTIVE DATE:	
EXPIRATION DATE:	
	Revised DRAFT
	Alabama Department of Environmental Management

**Water Division Chief** 

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## PART I: DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

The following outfalls and associated permit limitations shall apply only during periods when the facility is operating under Tier I conditions:

DSN0021, DSN0031, DSN002Y1, DSN003Y1, DSN03A1, DSN03AS

Tier I represents the facility's current operating configuration. Tier I requirements shall remain in effect until completion of the No. 16 Paper Machine modification and commencement of production under Tier II.

The following permit limitations shall apply only during periods when the facility is operating under Tier II conditions:

DSN0022, DSN0032, DSN002Y2, DSN003Y2

Tier II will begin upon completion of the No. 16 Paper Machine modification and the initiation of production under the revised configuration, and shall remain in effect through the expiration date of this permit.

The Permittee shall provide written notification to the Department within thirty (30) days of completing the No. 16 Paper Machine modification and commencing production under Tier II.



Pa	ge	3	of	4	6

The following permit limitations shall apply regardless of the operations being performed at the facility:

DSN002Q, DSN003Q, DSN002T, DSN003T, DSN004Q, DSN005Q, DSN006Q, DSN03B1, DSN03BS

#### DSN0021, DSN0031: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities 3/4/6/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below.

Parameter	Quantity of	or Loading	Units	Qual	lity or Concent	ration	Units	Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	23583 Monthly Average	45976 Maximum Daily	lbs/day	****	****	****	****	3X Weekly test	Composite	All Months
pH (00400) Effluent Gross Value	****	****	****	6.0 Minimum Daily	****	9.0 Maximum Daily	S.U.	Daily	Grab	All Months
Solids, Total Suspended (00530) Effluent Gross Value	48499 Monthly Average	91377 Maximum Daily	lbs/day	****	****	****	****	3X Weekly test	Composite	All Months
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	****	at at at at	****	****	ate ate ate ate	(Report) Maximum Daily	mg/l	Monthly	Composite	All Months
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	****	ate ate ate ate	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug Sep, Oct
Nitrite Plus Nitrate Total I Det. (As N) (00630) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug Sep, Oct
Phosphorus, Total (As P) (00665) Effluent Gross Value	***	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug Sep, Oct
Pentachlorophenol (39032) Effluent Gross Value 5/	****	0 Maximum Daily	lbs/day	****	****	****	****	Monthly	Composite	All Months

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ Flow is to be determined for both outfall lines and the value shall be the sum of the two flow determinations. Sampling for the remaining parameters is to be performed at outfall DSN003 only, except on days when the entire discharge is routed through DSN002 and then sampling shall be performed at DSN002. When monitoring is not required for parameters at a specific outfall, the Permittee shall enter "\*9" on the discharge monitoring report.
- 5/ In lieu of monitoring for this parameter, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.105 and 40 CFR 430.124 by entering "\*9" on the discharge monitoring report.
- 6/ Monitoring is only required during Tier I of the permit. If the facility is not operating under Tier I of the permit during a monitoring period, the facility should report "No Discharge" on the discharge monitoring report for this outfall. No more than one (1) scenario shall be reported with analytical values during the same monitoring period. The scenario that the facility is operating under the majority of the monitoring period shall apply.

#### DSN0021, DSN0031 (Continued): Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities 3/4/8/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity of	or Loading	Units	Qua	ality or Concent	tration	Units	Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal
Flow, In Conduit or Thru Treatment Plant (50050) 4/ Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	atc atc atc atc	****	****	****	Daily	Totalizer	All Months
# of Events (51484) 6/ Effluent Gross Value	****	****	****	****	****	0 Maximum Daily	# Exceedances	Monthly	Not Applicable	Jun, Jul, Aug. Sep, Oct
Certification - River Monitoring (51946) 7/ Effluent Gross Value	****	******	****	****	****	0 Maximum Daily	Yes=0; No=1	Monthly	Not Applicable	Jun, Jul, Aug. Sep, Oct
Trichlorophenol (81848) 5/ Effluent Gross Value	****	0 Maximum Daily	lbs/day	****	****	****	****	Monthly	Composite	All Months

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ Flow is to be determined for both outfall lines and the value shall be the sum of the two flow determinations. Sampling for the remaining parameters is to be performed at outfall DSN003 only, except on days when the entire discharge is routed through DSN002 and then sampling shall be performed at DSN002. When monitoring is not required for parameters at a specific outfall, the Permittee shall enter "\*9" on the discharge monitoring report.
- 5/ In lieu of monitoring for this parameter, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.105 and 40 CFR 430.124 by entering "\*9" on the discharge monitoring report.
- 6/ For compliance purposes, the permittee should report the number of times that the BOD5 exceeds the maximum level calculated in accordance with the equation detailed in Part IV.F of the permit.
- 7/ The Permittee shall report "0" to indicate compliance with the reporting requirements found at Part IV.F. of the permit.
- 8/ Monitoring is only required during Tier I of the permit. If the facility is not operating under Tier I of the permit during a monitoring period, the facility should report "No Discharge" on the discharge monitoring report for this outfall. No more than one (1) scenario shall be reported with analytical values during the same monitoring period. The scenario that the facility is operating under the majority of the monitoring period shall apply.

#### DSN0022, DSN0032: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities 3/4/6/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity (	or Loading	Units	Qu	ality or Concentrat	ion	Units	Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	18888 Monthly Average	37487 Maximum Daily	lbs/day	****	****	****	****	3X Weekly test	Composite	All Months
pH (00400) Effluent Gross Value	****	****	****	6.0 Minimum Daily	****	9.0 Maximum Daily	S.U.	Daily	Grab	All Months
Solids, Total Suspended (00530) Effluent Gross Value	34531 Monthly Average	67270 Maximum Daily	lbs/day	****	****	****	****	3X Weekly test	Composite	All Months
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	All Months
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct
Nitrite Plus Nitrate Total 1 Det. (As N) (00630) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct
Phosphorus, Total (As P) (00665) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct
Pentachlorophenol (39032) Effluent Gross Value 5/	****	0 Maximum Daily	lbs/day	****	****	****	****	Monthly	Composite	All Months

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ Flow is to be determined for both outfall lines and the value shall be the sum of the two flow determinations. Sampling for the remaining parameters is to be performed at outfall DSN003 only, except on days when the entire discharge is routed through DSN002 and then sampling shall be performed at DSN002. When monitoring is not required for parameters at a specific outfall, the Permittee shall enter "\*9" on the discharge monitoring report.
- 5/ In lieu of monitoring for these parameters, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.105 and 40 CFR 430.124 by entering \*9 on the discharge monitoring report.
- 6/ Monitoring is only required during Tier II of the permit. If the facility is not operating under Tier II of the permit during a monitoring period, the facility should report "No Discharge" on the discharge monitoring report for this outfall. No more than one (1) scenario shall be reported with analytical values during the same monitoring period. The scenario that the facility is operating under the majority of the monitoring period shall apply.

#### DSN0022, DSN0032 (Continued): Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities 3/4/8/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity of	or Loading	Units	Q	Units	Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal		
Flow, In Conduit or Thru Treatment Plant (50050) 4/ Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	** ** ** **	****	****	****	Daily	Totalizer	All Months
# of Events (51484) 6/ Effluent Gross Value	****	****	****	****	****	0 Maximum Daily	# Exceedanc es	Monthly	Not Applicable	Jun, Jul, Aug Sep, Oct
Certification - River Monitoring (51946) 7/ Effluent Gross Value	****	****	****	****	****	0 Maximum Daily	Yes=0;No =1	Monthly	Not Applicable	Jun, Jul, Aug Sep, Oct
Trichlorophenol (81848) Effluent Gross Value 5/	****	0 Maximum Daily	lbs/day	****	****	****	****	Monthly	Composite	All Months

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ Flow is to be determined for both outfall lines and the value shall be the sum of the two flow determinations. Sampling for the remaining parameters is to be performed at outfall DSN003 only, except on days when the entire discharge is routed through DSN002 and then sampling shall be performed at DSN002. When monitoring is not required for parameters at a specific outfall, the Permittee shall enter "\*9" on the discharge monitoring report.
- 5/ In lieu of monitoring for these parameters, the permittee may certify non-use of chlorophenolic containing compounds according to the requirements at 40 CFR 430.105 and 40 CFR 430.124 by entering \*9 on the discharge monitoring report.
- 6/ For compliance purposes, the permittee should report the number of times that the BOD5 exceeds the conditions detailed in Part IV.F of the Permit.
- 7/ The Permittee shall report "0" to indicate compliance with the reporting requirements found at Part IV.F. of the permit.
- 8/ Monitoring is only required during Tier II of the permit. If the facility is not operating under Tier II of the permit during a monitoring period, the facility should report "No Discharge" on the discharge monitoring report for this outfall. No more than one (1) scenario shall be reported with analytical values during the same monitoring period. The scenario that the facility is operating under the majority of the monitoring period shall apply.

DSN002Q, DSN003Q: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities - Certification of periodic submittals

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity (	or Loading	Units		ality or Concentra	Units	Sample Frequency	Sample Type	Seasonal	
Certification-BMP Submittal (85873) 1/ Effluent Gross Value	****	****	****	****	****	0 Maximum Daily	Yes=0; No=1	Quarterly	Not Applicable	All Months

#### DSN002T, DSN003T: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities 4/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantit	y or Loading	Units	Q	Quality or Concenti	ration	Units	Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal
Toxicity, Ceriodaphnia Chronic (61426) 3/ Effluent Gross Value	****	0 Maximum Daily	pass=0; fail=1	****	****	****	****	Annually	Composite	All Months
Toxicity, Pimephales Chronic (61428) 3/ Effluent Gross Value	****	0 Maximum Daily	pass=0; fail=1	****	****	****	****	Annually	Composite	All Months

Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

<sup>2/</sup> If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

<sup>3/</sup> See Part IV.C. for Effluent Toxicity and Biomonitoring Requirements.

<sup>4/</sup> Sampling is to be performed at outfall DSN003 only, except on days when the entire discharge is routed through DSN002 and then sampling shall be performed at DSN002. When monitoring is not required for parameters at a specific outfall, the Permittee shall enter "\*9" on the discharge monitoring report.

#### DSN002Y1, DSN003Y1: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities 3/5/6/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Parameter Quantity or Loading				Quality or Concentration				Sample Type <sup>1</sup>	Seasonal
Halogens, Adsorbable Organic (03594) Effluent Gross Value	1552 Monthly Average	2369 Maximum Daily	lbs/day	****	****	****	****	Annually	Composite	All Months
2,3,7,8-Tetrachlorodibenzo- P-Dioxin (34675) 4/ Effluent Gross Value	****	0.00000397 Maximum Daily	lbs/day	****	****	(Report) Maximum Daily	ppq	Annually	Composite	All Months

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ The quantity of flow used to calculate the mass discharge of all daily process wastewater discharges during the past 12 months of mill operation. Zero process discharge days shall not be used in the calculation of this average daily flow.
- 5/ Sampling is to be performed at outfall DSN003 only, except on days when the entire discharge is routed through DSN002 and then sampling shall be performed at DSN002. When monitoring is not required for parameters at a specific outfall, the Permittee shall enter "\*9" on the discharge monitoring report.
- 6/ Monitoring is only required during Tier I of the permit. If the facility is not operating under Tier I of the permit during a monitoring period, the facility should report "No Discharge" on the discharge monitoring report for this outfall. No more than one (1) scenario shall be reported with analytical values during the same monitoring period. The scenario that the facility is operating under the majority of the monitoring period shall apply.

#### DSN002Y2, DSN003Y2: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities 3/5/6/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity of	or Loading	Units	Qu	Units	Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal		
Halogens, Adsorbable Organic (03594) Effluent Gross Value	613 Monthly Average	935 Maximum Daily	lbs/day	***	****	****	****	Annually	Composite	All Months
2,3,7,8-Tetrachlorodibenzo- P-Dioxin (34675) 4/ Effluent Gross Value	****	0.00000397 Maximum Daily	lbs/day	****	****	(Report) Maximum Daily	ppq	Annually	Composite	All Months

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ The quantity of flow used to calculate the mass discharge of all daily process wastewater discharges during the past 12 months of mill operation. Zero process discharge days shall not be used in the calculation of this average daily flow.
- 5/ Sampling is to be performed at outfall DSN003 only, except on days when the entire discharge is routed through DSN002 and then sampling shall be performed at DSN002. When monitoring is not required for parameters at a specific outfall, the Permittee shall enter "\*9" on the discharge monitoring report.
- 6/ Monitoring is only required during Tier II of the permit. If the facility is not operating under Tier II of the permit during a monitoring period, the facility should report "No Discharge" on the discharge monitoring report for this outfall. No more than one (1) scenario shall be reported with analytical values during the same monitoring period. The scenario that the facility is operating under the majority of the monitoring period shall apply.

DSN004Q, DSN006Q: Storm water from process areas 3/4/

DSN005Q: Storm water from process areas and fire tank overflow 3/4/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration				Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
pH (00400) Effluent Gross Value	****	****	****	(Report) Minimum Daily	****	(Report) Maximum Daily	S.U.	Quarterly	Grab	All Months
Solids, Total Suspended (00530) Effluent Gross Value	***	****	****	****	****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months
Oil & Grease (00556) Effluent Gross Value	****	****	****	****	****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	****	****	****	****	Quarterly	Estimate	All Months

<sup>1/</sup> Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

<sup>2/</sup> If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

<sup>3/</sup> See Part IV.A for Best Management Practices (BMP) Plan Requirements.

<sup>4/</sup> See Part IV.B for Stormwater Measurement and Sampling Requirements.

#### DSN03A1: Plant #1 (Hardwood) Bleach Plant 3/4/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity of	or Loading	Units	Qı	Units	Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal		
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	****	****	****	****	Monthly	Calculated	All Months

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each point.
- 4/ Monitoring is only required when the facility is operating under Tier I conditions. If the facility is not operating under Tier I during a required monitoring period, the Permittee shall report "No Discharge" on the discharge monitoring report (DMR) for the applicable outfall.

#### DSN03AS: Plant #1 (Hardwood) Bleach Plant 3/4/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration				Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal
Chloroform (32106) Effluent Gross Value	5.285 Monthly Average	8.833 Maximum Daily	lbs/day	****	****	****	****	Semi- Annually	Grab	All Months
2,4,6-Trichlorophenol (34621) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months
2,3,7,8-Tetrachlorodibenzo- P-Dioxin (34675) Effluent Gross Value	****	****	****	****	****	9.9999 Maximum Daily	pg/l	Semi- Annually	Composite	All Months
2,3,7,8 Tetrachlorodibenzofuran (TCDF) (38691) Effluent Gross Value	****	****	****	****	****	31.9 Maximum Daily	pg/l	Semi- Annually	Composite	All Months
Pentachlorophenol (39032) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months
3,4,6-Trichloroguaiacol (51022) Effluent Gross Value	***	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months
3,4,6-Trichlorocatechol (51024) Effluent Gross Value	***	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months
3,4,5-Trichloroguaiacol (61024) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months
3,4,5 Trichlorocatechol (73037) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each point.
- 4/ Monitoring is only required when the facility is operating under Tier I conditions. If the facility is not operating under Tier I during a required monitoring period, the Permittee shall report "No Discharge" on the discharge monitoring report (DMR) for the applicable outfall.

#### DSN03AS (Continued): Plant #1 (Hardwood) Bleach Plant 3/4/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity or Loading		Units	Quality or Concentration				Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal
Tetrachloroguaiacol (73047) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months
Tetrachlorocatechol (73050) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months
Trichlorosyringol (73054) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months
4,5,6-Trichloroguaiacol (73088) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months
2,4,5-Trichlorophenol (1) (77687) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months
2,3,4,6-Tetrachlorophenol (77770) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each point.
- 4/ Monitoring is only required when the facility is operating under Tier I conditions. If the facility is not operating under Tier I during a required monitoring period, the Permittee shall report "No Discharge" on the discharge monitoring report (DMR) for the applicable outfall.

DSN03B1: Plant #2 (Softwood) Bleach Plant (Tier I) 3/

#### Plant #2 Bleach Plant (Tier II) 3/4/

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 the outfall(s) listed above and described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Quantity o	or Loading	Units	Qı	Units	Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal		
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	****	****	****	****	Monthly	Calculated	All Months

<sup>1/</sup> Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.

<sup>2/</sup> If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.

<sup>3/</sup> The flow measurement shall be a calculated value based on a material balance. The permittee shall maintain these calculations and assumptions with the monitoring records for each point.

<sup>4/</sup> Prior to reporting under the Tier II, the Permittee must submit written notification to the Department.

DSN03BS: Plant #2 (Softwood) Bleach Plant 3/4/6/

#### Plant #2 Bleach Plant (Tier II) 3/4/7/

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 the outfall(s) listed above and

described more fully in the Permittee's application. Such discharges shall be limited and monitored by the Permittee as specified below:

described more runy in the Permittee's	application. Such di	ischarges shan be	minica and	illollitored by the	i crimitice as spe	cifica octow.				
Parameter	Quantity or	Loading	Units	Qua	ality or Concent	ration	Units	Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal
Chloroform (32106) <b>6/</b> Effluent Gross Value	5.029 Monthly Average	8.406 Maximum Daily	lbs/day	****	****	****	****	Semi-Annually	Grab <b>5</b> /	All Months
Chloroform (32106) 7/ Effluent Gross Value	4.074 Monthly Average	6.809 Maximum Daily	lbs/day	****	****	****	****	Semi-Annually	Grab <b>5</b> /	All Months
2,4,6-Trichlorophenol (34621) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (34675) Effluent Gross Value	****	****	****	****	****	9.9999 Maximum Daily	pg/l	Semi-Annually	Composite	All Months
2,3,7,8 Tetrachlorodibenzofuran (TCDF) (38691) Effluent Gross Value	****	****	****	****	****	31.9 Maximum Daily	pg/l	Semi-Annually	Composite	All Months
Pentachlorophenol (39032) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months
3,4,6-Trichloroguaiacol (51022) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months
3,4,6-Trichlorocatechol (51024) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ These limits apply to the bleach plant wastewater prior to treatment.
- 4/ See Part IV.G for required test methods and minimum levels.
- 5/ Six (6) grab samples, 40 ml each, for chloroform, shall be collected over a 24-hour period (one every four hours for twenty-four hours). Grab samples are to be obtained from each acid and alkaline sewer line. Grab samples collected from alkaline sewer lines may be combined by flow weighted composite into one sample for analysis in the lab. Grab samples collected from the acid sewer lines may be composited in the same manner. Samples are to be cooled during and after collection and are to be collected in such a manner that the samples do not contain entrained air. Samples may be collected manually or by an EPA approved automatic sampling device.
- 6/ These limitations shall apply from the effective date of the permit until modification of the No. 16 Paper Machine is complete and production occurs. During any monitoring period after commencement of Tier II limitations, the Permittee shall report "\*9" on the DMR for this parameter.
- 7/ These limitations shall apply beginning with production from the modified No. 16 Paper Machine and remain in effect for the duration of the permit term. Prior to commencement of reporting under Tier II, the Permittee shall report "\*9" on the DMR for this parameter.
- 8/ Prior to reporting under the Tier II, the Permittee must submit written notification to the Department.

DSN03BS (Continued): Plant #2 (Softwood) Bleach Plant 3/4/

#### Plant #2 Bleach Plant (Tier II) 3/4/5/

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

Parameter	Quantity or Loading		Units Quality or Concentration				Units	Sample Frequency <sup>2</sup>	Sample Type <sup>1</sup>	Seasonal
3,4,5-Trichloroguaiacol (61024) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months
3,4,5 Trichlorocatechol (73037) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months
Tetrachloroguaiacol (73047) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months
Tetrachlorocatechol (73050) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months
Trichlorosyringol (73054) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months
4,5,6-Trichloroguaiacol (73088) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months
2,4,5-Trichlorophenol (1) (77687) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months
2,3,4,6-Tetrachlorophenol (77770) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi-Annually	Composite	All Months

- Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ These limits apply to the bleach plant wastewater prior to treatment.
- 4/ See Part IV.G for required test methods and minimum levels.
- 5/ Prior to reporting under the Tier II, the Permittee must submit written notification to the Department.

## B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

#### 1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit.

#### 2. 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 using the most sensitive EPA approved method. 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.

#### 3. Recording of Results

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

- 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.

#### 4. Records Retention and Production

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 shall not be submitted unless requested.

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.

#### 5. 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. The permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

#### C. DISCHARGE REPORTING REQUIREMENTS

#### 1. Reporting of Monitoring Requirements

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

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.

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 may be done anytime during the quarter, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the quarter, i.e., (March, June, September and December DMR's).

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 submitted with the last DMR for the month of the semiannual period, i.e. (June and December DMR's).

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 submitted with the December DMR.

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

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 (MONTH, YEAR). 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.

REPORTS OF QUARTERLY TESTING shall be submitted on a quarterly basis. The first report is due on the 28th day of [Month, Year]. 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.

**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.

REPORTS OF ANNUAL TESTING shall be submitted on an annual basis. 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.

c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b electronically.

- (1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's electronic 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 Department's electronic 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 5 calendar days of the Department's electronic system resuming operation, the permittee shall enter the data into the Department's electronic system, unless an alternate timeframe is approved by the Department. A comment should be included on the electronic DMR submittal verifying the original submittal date (date of the fax, copy of the 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.
  - Permittees 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, 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 335-6-6-0.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-0.09 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
Water Division
Office of Water Services
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 Water Division Office of Water Services 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`
Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

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

g. If this permit is a re-issuance, 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 Notification

a. 24-Hour Noncompliance Reporting

The permittee shall report to the Director, within 24-hours of becoming aware of the noncompliance, any noncompliance which may endanger health or the environment. This shall include but is not limited to the following circumstances:

- (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) threatens human health or welfare, fish or aquatic life, or water quality standards;
- (3) 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);
- (4) contains a quantity of a hazardous substance which has been determined may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);
- (5) exceeds any discharge limitation for an effluent characteristic as a result of an unanticipated bypass or upset; and
- (6) is an unpermitted direct or indirect discharge of a pollutant to a water of the state (unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision).

The permittee shall orally report the occurrence and circumstances of such discharge to the Director within 24-hours after the permittee becomes aware of the occurrence of such discharge. In addition to the oral report, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c no later than five (5) days after becoming aware of the occurrence of such discharge.

- b. If for any reason, the permittee's discharge does not comply with any limitation of this permit, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c below, such report shall be submitted with the next Discharge Monitoring Report required to be submitted by Part I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.
- c. Any written report required to be submitted to the Director or Designee by Part I.C.2 a. or b. shall be submitted using a Noncompliance Notification Form (ADEM Form 421) available on the Department's website (<a href="http://adem.alabama.gov/DeptForms/Form421.pdf">http://adem.alabama.gov/DeptForms/Form421.pdf</a>) and include the following information:
  - (1) A description of the discharge and cause of noncompliance;

- (2) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
- (3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

#### 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, 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.

#### 5. Cooling Water and Boiler Water Additives

- a. The permittee shall notify the Director in writing not later than thirty (30) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in a cooling or boiler system, not identified in the application for this permit, from which discharge is allowed by this permit. Notification is not required for additives that do not contain a heavy metal(s) as an active ingredient and that pass through a wastewater treatment system prior to discharge nor is notification required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the permittee. Such notification shall include:
  - (1) name and general composition of biocide or chemical;
  - (2) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach;
  - (3) quantities to be used;
  - (4) frequencies of use;
  - (5) proposed discharge concentrations; and
  - (6) EPA registration number, if applicable.
- b. The use of a biocide or additive containing tributyl tin, tributyl tin oxide, zinc, chromium or related compounds in cooling or boiler system(s), from which a discharge regulated by this permit occurs, is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this permit or in the

application for this permit or not exempted from notification under this permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

#### 6. Permit Issued Based on Estimated Characteristics

- a. If this permit was issued based on estimates of the characteristics of a process discharge reported on an EPA NPDES Application Form 2D (EPA Form 3510-2D), the permittee shall complete and submit an EPA NPDES Application Form 2C (EPA Form 3510-2C) no later than two years after the date that discharge begins. Sampling required for completion of the Form 2C shall occur when a discharge(s) from the process(s) causing the new or increased discharge is occurring. If this permit was issued based on estimates concerning the composition of a stormwater discharge(s), the permittee shall perform the sampling required by EPA NPDES Application Form 2F (EPA Form 3510-2F) no later than one year after the industrial activity generating the stormwater discharge has been fully initiated.
- b. This permit shall be reopened if required to address any new information resulting from the completion and submittal of the Form 2C and or 2F.

#### E. SCHEDULE OF COMPLIANCE

1. 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. 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

- 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 Best Management Practices (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. Spill Prevention, Control, and Management

The permittee shall provide spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a water of the state or a publicly or privately owned treatment works. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and which shall prevent the contamination of groundwater and such containment system shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided.

## **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:

- a. 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;
- b. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and
- d. 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 and negate the permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or Local Government permits, certifications, licenses, or other approvals.

#### 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 Blvd., Montgomery, AL 36130.
- 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

- a. The permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant such that existing permit limitations would be exceeded or that could result in an additional discharge point. This requirement 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.
- b. The permittee shall notify the Director as soon as it is known or there is reason to believe:
  - (1) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
    - (i) one hundred micrograms per liter;
    - (ii) two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dini-trophenol; and one milligram per liter for antimony;
    - (iii) five times the maximum concentration value reported for that pollutant in the permit application; or
  - (2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

- (i) five hundred micrograms per liter;
- (ii) one milligram per liter for antimony;
- (iii) ten times the maximum concentration value reported for that pollutant in the permit application.

#### 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. Permit 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;
- 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. Permit Suspension

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

#### 7. Request for Permit Action Does Not Stay Any Permit Requirement

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. DISCHARGE OF WASTEWATER GENERATED BY OTHERS

The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the permittee or not identified in the application for this permit or not identified specifically in the description of an outfall in this permit is not authorized by this permit.

#### PART III: OTHER PERMIT CONDITIONS

#### 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, trespass, 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 <u>Code of Alabama</u> 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 is 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 the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

## 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.
- 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

- 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).

- 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. <u>CBOD</u> means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
- 8. <u>Daily discharge</u> 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. <u>Daily maximum</u> 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. <u>Discharge</u> means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other wastes into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(8).
- 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 5 equal volume samples collected at constant time intervals of not more than 2 hours 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. <u>FC</u> 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. <u>Grab Sample</u> 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. <u>Indirect Discharger</u> means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
- 25. <u>Industrial User</u> 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, other than for fecal coliform bacteria, the arithmetic mean of the entire composite or grab samples taken for the daily discharges collected in one month period. The monthly average for fecal coliform bacteria is the geometric mean of daily discharge samples collected in a 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. that did not commence the discharge of pollutants 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. <u>Permit application</u> means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.
- 31. <u>Point source</u> 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).
- 32. 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.
- 33. <u>Privately Owned Treatment Works</u> 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".
- 34. <u>Publicly Owned Treatment Works</u> 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.
- 35. Receiving Stream means the "waters" receiving a "discharge" from a "point source".
- 36. 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.
- 37. <u>Significant Source</u> 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.
- 38. Solvent means any virgin, used or spent organic solvent(s) identified in the F-Listed wastes (F001 through F005) specified in 40 CFR 261.31 that is used for the purpose of solubilizing other materials.
- 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 12 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
  - a sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.

- 44. <u>Upset</u> 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: ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

## A. BEST MANAGEMENT PRACTICES (BMP) PLAN REQUIREMENTS

#### 1. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) Plan which prevents, or minimizes the potential for, the release of pollutants from ancillary activities, including material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas, to the waters of the State through plant site runoff; spillage or leaks; sludge or waste disposal; or drainage from raw material storage.

#### 2. Plan Content

The permittee shall prepare and implement a best management practices (BMP) plan, which shall:

- a. Establish specific objectives for the control of pollutants:
  - Each facility component or system shall be examined for its potential for causing a release of significant amounts of
    pollutants to waters of the State due to equipment failure, improper operation, natural phenomena such as rain or
    snowfall, etc.
  - (2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g. precipitation), or circumstances to result in significant amounts of pollutants reaching surface waters, the plan should include a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.
- b. Establish specific best management practices to meet the objectives identified under paragraph a. of this section, addressing each component or system capable of causing a release of significant amounts of pollutants to the waters of the State, and identifying specific preventative or remedial measures to be implemented;
- c. Establish a program to identify and repair leaking equipment items and damaged containment structures, which may contribute to contaminated stormwater runoff. This program must include regular visual inspections of equipment, containment structures and of the facility in general to ensure that the BMP is continually implemented and effective;
- d. Prevent the spillage or loss of fluids, oil, grease, gasoline, etc. from vehicle and equipment maintenance activities and thereby prevent the contamination of stormwater from these substances;
- e. Prevent or minimize stormwater contact with material stored on site;
- f. Designate by position or name the person or persons responsible for the day to day implementation of the BMP;
- g. Provide for routine inspections, on days during which the facility is manned, of any structures that function to prevent stormwater pollution or to remove pollutants from stormwater and of the facility in general. Routine inspections should be done at a frequency to ensure that the BMP is continually implemented and effective and in no case less frequent than once per year;
- h. Provide for the use and disposal of any material used to absorb spilled fluids that could contaminate stormwater;
- Develop a solvent management plan, if solvents are used on site. The solvent management plan shall include as a minimum lists of the solvents on site; the disposal method of solvents used instead of dumping, such as reclamation, contract hauling; and the procedures for assuring that solvents do not routinely spill or leak into the stormwater;
- j. Provide for the disposal of all used oils, hydraulic fluids, firefighting foams, solvent degreasing material, etc. in accordance with good management practices and any applicable state or federal regulations;
- k. Include a diagram of the facility showing the locations where stormwater exits the facility, the locations of any structure or other mechanisms intended to prevent pollution of stormwater or to remove pollutants from stormwater, the locations of any collection and handling systems;
- Provide control sufficient to prevent or control pollution of stormwater by soil particles to the degree required to maintain compliance with the water quality standard for turbidity applicable to the waterbody(s) receiving discharge(s) under this permit;
- m. Provide spill prevention, control, and/or management sufficient to prevent or minimize contaminated stormwater runoff.

  Any containment system used to implement this requirement shall be constructed of materials compatible with the

substance(s) contained and shall prevent the contamination of groundwater. The containment system shall also be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided;

- Provide and maintain curbing, diking or other means of isolating process areas to the extent necessary to allow segregation and collection for treatment of contaminated stormwater from process areas;
- o. Be reviewed by plant engineering staff and the plant manager; and
- p. Bear the signature of the plant manager.

## 3. Compliance Schedule

The permittee shall have reviewed (and revised if necessary) and fully implemented the BMP plan as soon as practicable but no later than six months after the effective date of this permit.

## 4. Department Review

- a. When requested by the Director or his designee, the permittee shall make the BMP available for Department review.
- b. The Director or his designee may notify the permittee at any time that the BMP is deficient and require correction of the deficiency.
- c. The permittee shall correct any BMP 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.

#### 5. Administrative Procedures

- a. A copy of the BMP shall be maintained at the facility and shall be available for inspection by representatives of the Department.
- b. A log of the routine inspection required above shall be maintained at the facility and shall be available for inspection by representatives of the Department. The log shall contain records of all inspections performed for the last three years and each entry shall be signed by the person performing the inspection.
- c. The permittee shall provide training for any personnel required to implement the BMP and shall retain documentation of such training at the facility. This documentation shall be available for inspection by representatives of the Department. Training shall be performed prior to the date that implementation of the BMP is required.
- d. BMP Plan Modification. The permittee shall amend the BMP plan whenever there is a change in the facility or change in operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.
- e. BMP Plan Review. The permittee shall complete a review and evaluation of the BMP plan at least once every three years from the date of preparation of the BMP plan. Documentation of the BMP Plan review and evaluation shall be signed and dated by the Plant Manager.

#### B. STORMWATER FLOW MEASUREMENT AND SAMPLING REQUIREMENTS

#### 1. Stormwater Flow Measurement

- a. All stormwater samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches.
- b. The total volume of stormwater discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for 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 according to Part I.B. of this permit.
- c. The volume may be measured using flow measuring devices, or estimated based on a modification of the Rational Method using total depth of rainfall, the size of the drainage area serving a stormwater outfall, and an estimate of the runoff coefficient of the drainage area. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

#### 2. Stormwater Sampling

- a. A grab sample, if required by this permit, shall be taken during the first thirty minutes of the discharge (or as soon thereafter as practicable); and a flow-weighted composite sample, if required by this permit, shall be taken for the entire event or for the first three hours of the event.
- b. All test procedures will be in accordance with part I.B. of this permit.

### C. EFFLUENT TOXICITY LIMITATIONS AND BIOMONITORING REQUIREMENTS

The permittee shall perform short-term chronic toxicity tests on the wastewater discharges required to be tested for chronic toxicity by Part I
of this permit.

#### a. Test Requirements

- (1) The samples shall be diluted using appropriate control water, to the Instream Waste Concentration (IWC) which is 4% effluent. The IWC is the actual concentration of effluent, after mixing, in the receiving stream during a 7-day, 10-year flow period.
- (2) Any test result that shows a statistically significant reduction in survival, growth, or reproduction between the control and the test at the 95% confidence level indicate chronic toxicity and constitute noncompliance with this permit.
- (3) Noncompliance with the toxicity limit will be demonstrated if the IC25 (Inhibition Concentration) for reproduction or growth is less than the IWC. The average reproduction for Ceriodaphnia shall be calculated by dividing the total number of live Ceriodaphnia young in each concentration by the total number of organisms used to initiate that concentration: the average growth for the fathead minnows shall be calculated by dividing the total weight of the surviving minnow larvae in each replicated by the total number of organisms used to initiate that replicate.

#### b. General Test Requirements

- (1) A minimum of three (3) 24-hour composite samples shall be obtained for use in the above biomonitoring tests and 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 or the most current edition or another control water selected by the permittee and approved by the Department.
- (2) Effluent toxicity tests in which the control survival is less than 80%, P. promelas dry weight per surviving control organism is less than 0.25 mg, Ceriodaphnia number of young per surviving control organism is less than 15, Ceriodaphnia reproduction where less than 60% of surviving control females produce three broods or in which the other requirements of the EPA Test Procedure are not met shall be unacceptable and the permittee shall rerun the tests as soon as practical within the monitoring period.
- (3) In the event of an invalid test, upon subsequent completion of a valid test, the results of all tests, valid and invalid, are reported with an explanation of the tests performed and results.

#### Reporting Requirements

- (1) The permittee shall notify the Department in writing within 48 hours after toxicity has been demonstrated by the scheduled test(s).
- (2) 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 Section 2 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 in which the tests were performed.

#### d. Additional Testing Requirements

- (1) If chronic toxicity is indicated (noncompliance with permit limit), the permittee shall 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 on which the permittee became aware of the permit noncompliance and the results of these tests shall be submitted no later than 28 days following the month in which the tests were performed.
- (2) 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/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, etc.)

#### e. 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 Water to Freshwater Organisms". The Larval Survival and Growth Test, Methods 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.

## 2. Effluent Toxicity Testing Reports

The following information shall be submitted with each discharge monitoring report unless otherwise directed by the Department. The Department may at any time suspend or reinstate these requirements 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 Operation
  - (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, PASS/FAIL, 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 sub-lethal endpoints determined by hypothesis testing.
- h. Conclusions and Recommendations
  - (1) Relationship between test endpoints and permit limits
  - (2) Actions to be taken

# D. COOLING WATER INTAKE STRUCTURE (CWIS) REQUIREMENTS

- 1. The cooling water intake structure used by the permittee has been evaluated using available information. At this time, the Department has determined that the cooling water intake structure represents the best technology available (BTA) to minimize adverse environmental impact in accordance with Section 316(b) of the Federal Clean Water Act (33 U.S.C. section 1326).
- 2. The permittee shall submit the following information at least 180 days prior to expiration of the permit:
  - a. design intake flow of the CWIS
  - b. percentage of intake flow, based on highest monthly average in last 5 years, used for cooling purposes;
  - c. an estimate of the intake flow reduction at the facility based upon the use of a 100 percent (or some lesser percentage) closed-cycle re-circulating cooling water system compared to a conventional once-through cooling water system
  - d. through screen design intake flow velocity
  - e. any impingement and entrainment data that may have been collected based on the operation of the facility's CWIS, collected since the effective date of this NPDES permit
  - f. a detailed description of any changes in the operations of the CWIS, or changes in the type of technologies used at the CWIS such as screens or other technologies affecting the rates of impingement and/or entrainment of fish and shellfish
- The permittee is required to operate and maintain the CWIS in a manner that minimizes impingement and entrainment levels.
   Documentation detailing the steps that have and are being taken to minimize the impingement and entrainment levels shall be maintained on site and made available upon request.
- 4. Nothing in this Permit authorizes take for the purposes of a facility compliance with the Endangered Species Act. Under the Endangered Species Act, take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct, of endangered or threatened species.

# E. BEST MANAGEMENT PRACTICES (BMPS) FOR SPENT PULPING LIQUOR, SOAP, AND TURPENTINE MANAGEMENT, SPILL PREVENTION, AND CONTROL

#### 1. Applicability

This section applies to direct and indirect discharging pulp, paper, and paperboard mills with pulp production in Subparts B (Bleached Papergrade Kraft and Soda) and E (Papergrade Sulfite) of the Pulp and Paper Guidelines (40 CFR Part 430).

# 2. Specialized Definitions

- a. Action Level: A daily pollutant loading that when exceeded triggers investigative or corrective action. The mill shall determine action levels by a statistical analysis of six months of daily measurements collected at the mill. For example, the lower action level may be the 75th percentile of the running seven-day averages (that value exceeded by 25 percent of the running seven-day averages) and the upper action level may be the 90th percentile of the running seven-day averages (that value exceeded by 10 percent of the running seven-day averages).
- b. Equipment Items in Spent Pulping, Liquor, Soap, and Turpentine Service: Any process vessel, storage tank, pumping system, evaporator, heat exchanger, recovery furnace or boiler, pipeline, valve, fitting, or other device that contains, processes, transports, or comes into contact with spent pulping liquor, soap, or turpentine. Sometimes referred to as "equipment items".
- c. <u>Immediate Process Area</u>: The location at the mill where pulping, screening, knotting, pulp washing, pulping liquor concentration, pulping liquor processing, and chemical recovery facilities are located, generally the battery limits of the aforementioned processes. "Immediate process area" includes spent pulping liquor storage and spill control tanks located at the mill, whether or not they are located in the immediate process area.
- d. <u>Intentional Diversion</u>: The planned removal of spent pulping liquor, soap, or turpentine from equipment items in spent pulping liquor, soap, or turpentine service by the mill for any purpose including, but not limited to, maintenance, grade changes, or process shutdowns.
- e. Mill: The owner or operator of a direct or indirect discharging pulp, paper, or paperboard manufacturing facility subject to this section.

- f. Senior Technical Manager: The person designated by the mill manager to review the BMP Plan. The senior technical manager shall be the chief engineer at the mill, the manager of pulping and chemical recovery operations, or other such responsible person designated by the mill manager who has knowledge of and responsibility for pulping and chemical recovery operations.
- g. Soap: The product of reaction between the alkali in Kraft pulping liquor and fatty acid portions of the wood, which precipitate out when water is evaporated from the spent pulping liquor.
- h. <u>Spent Pulping Liquor</u>: For Kraft and soda mills "spent pulping liquor" means black liquor that is used, generated, stored, or processed at any point in the pulping and chemical recovery processes. For sulfite mills "spent pulping liquor" means any intermediate, final, or used chemical solution that is used, generated, stored, or processed at any point in the sulfite pulping and chemical recovery processes (e.g., ammonium-, calcium-, magnesium-, or sodium- based sulfite liquors).
- i. <u>Turpentine</u>: A mixture of terpenes, principally pinene, obtained by the steam distillation of pine gum recovered from the condensation of digester relief gases from the cooking of softwoods by the Kraft pulping process. Sometimes referred to as sulfite turpentine.

## 3. Requirement to Implement Best Management Practices

a. The mill must implement the Best Management Practices (BMPs) specified in paragraphs (1) through (10) of this section. The primary objective of the BMPs is to prevent leaks and spills of spent pulping liquors, soap, and turpentine. The secondary objective is to contain, collect, and recover at the immediate process area, or otherwise control, those leaks, spills, and intentional diversions of spent pulping liquor, soap, and turpentine that do occur. BMPs must be developed according to best engineering practices and must be implemented in a manner that takes into account the specific circumstances at the mill.

#### b. The BMPs are as follows:

- (1) The mill must return spilled or diverted spent pulping liquors, soap, and turpentine to the process to the maximum extent practicable as determined by the mill, recover such materials outside the process, or discharge spilled or diverted material at a rate that does not disrupt the receiving wastewater treatment system.
- (2) This program must include: The mill must establish a program to identify and repair leaking equipment items.
  - (i) Regular visual inspections (e.g., once per day) of process areas with equipment items in spent pulping liquor, soap, and turpentine service;
  - (ii) Immediate repairs of leaking equipment items, when possible. Leaking equipment items that cannot be repaired during normal operations must be identified, temporary means for mitigating the leaks must be provided, and the leaking equipment items repaired during the next maintenance outage;
  - (iii) Identification of conditions under which production will be curtailed or halted to repair leaking equipment items or to prevent pulping liquor, soap, and turpentine leaks and spills; and
  - (iv) A means for tracking repairs over time to identify those equipment items where upgrade or replacement may be warranted based on frequency and severity of leaks, spills, or failures.
- (3) The mill must operate continuous, automatic monitoring systems that the mill determines are necessary to detect and control leaks, spills, and intentional diversions of spent pulping liquor, soap, and turpentine. These monitoring systems should be integrated with the mill process control system and may include, e.g., high level monitors and alarms on storage tanks; process area conductivity (or pH) monitors and alarms; and process area sewer, process wastewater, and wastewater treatment plant conductivity (or pH) monitors and alarms.
- (4) The mill must establish a program of initial and refresher training of operators, maintenance personnel, and other technical and supervisory personnel who have the responsibility for operating, maintaining, or supervising the operation and maintenance of equipment items in spent pulping liquor, soap, and turpentine service. The refresher training must be conducted at least annually and the training program must be documented.
- (5) The mill must prepare a brief report that evaluates each spill of spent pulping liquor, soap, or turpentine that is not contained at the immediate process areas and any intentional diversion of spent pulping liquor, soap, and turpentine that is not contained at the immediate process area. The report must describe the equipment items involved, the circumstances leading to the incident, the effectiveness of the corrective actions taken to contain and recover the spill or intentional diversion, and plans to develop changes to equipment and operating and maintenance practices as necessary to prevent recurrence. Discussion of the reports must be included as part of the annual refresher training.

- (6) The mill must establish a program to review any planned modifications to the pulping and chemical recovery facilities and any construction activities in the pulping and chemical recovery areas before these activities commence. The purpose of such review is to prevent leaks and spills of spent pulping liquor, soap, and turpentine during the planned modifications, and to ensure that construction and supervisory personnel are aware of possible liquor diversions and of the requirement to prevent leaks and spills of spent pulping liquors, soap, and turpentine during construction.
- (7) The mill must install and maintain secondary containment (i.e., containment constructed of materials impervious to pulping liquors) for spent pulping liquor bulk storage tanks equivalent to the volume of the largest tank plus sufficient freeboard for precipitation. An annual tank integrity testing program, if coupled with other containment or diversion structures, may be substituted for secondary containment for spent pulping liquor bulk storage tanks.
- (8) The mill must install and maintain secondary containment for turpentine bulk storage tanks.
- (9) The mill must install and maintain curbing, diking or other means of isolating soap and turpentine processing and loading areas from the wastewater treatment facilities.
- (10) The mill must conduct wastewater monitoring to detect leaks and spills, to track the effectiveness of the BMPs, and to detect trends in spent pulping liquor losses. Such monitoring must be performed in accordance with paragraph 9. of the following sections.

# 4. Requirement to Develop a BMP Plan

- a. The mill must prepare and implement a BMP Plan. The BMP Plan must be based on a detailed engineering review as described in paragraphs 4.b. and c. of this section. The BMP Plan must specify the procedures and the practices required for the mill to meet the requirements of paragraph 3. of the previous section, the construction the mill determines is necessary to meet those requirements including a schedule for such construction, and the monitoring program (including the statistically derived action levels) that will be used to meet the requirements of paragraph 9. of the following sections. The BMP Plan also must specify the period of time that the mill determines the action levels established under paragraph 8. of the following sections may be exceeded without triggering the responses specified in paragraph 9. of the following sections.
- b. The mill must conduct a detailed engineering review of the pulping and chemical recovery operations including but not limited to process equipment, storage tanks, pipeline and pumping systems, loading and unloading facilities, and other appurtenant pulping and chemical recovery equipment items in spent pulping liquor, soap, and turpentine service for the purpose of determining the magnitude and routing of potential leaks, spills, and intentional diversions of spent pulping liquors, soap, and turpentine during the following periods of operation:
  - (1) Process start-ups and shut downs;
  - (2) Maintenance;
  - (3) Production grade changes;
  - (4) Storm or other weather events;
  - (5) Power failures;
  - (6) Normal operations.
- c. As part of the engineering review, the mill must determine whether existing spent pulping liquor containment facilities are of adequate capacity for collection and storage of anticipated intentional liquor diversions with sufficient contingency for collection and containment of spills. The engineering review must also consider:
  - (1) The need for continuous, automatic monitoring systems to detect and control leaks and spills of spent pulping liquor, soap, and turpentine;
  - (2) The need for process wastewater diversion facilities to protect end-of-pipe wastewater treatment facilities from adverse effects of spills and diversions of spent pulping liquors, soap, and turpentine;
  - (3) The potential for contamination of storm water from the immediate process areas; and
  - (4) The extent to which segregation and/or collection and treatment of contaminated storm water from the immediate process areas is appropriate.

#### 5. Amendment of BMP Plan

- a. The mill must amend its BMP Plan whenever there is a change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, turpentine, or soap from the immediate process areas.
- b. The mill must complete a review and evaluation of the BMP Plan five years after the first BMP Plan is prepared and, except as provided in paragraph 5.a. of this section, once every five years thereafter. As a result of this review and evaluation, the mill must amend the BMP Plan within three months of the review if the mill determines that any new or modified management practices and engineered controls are necessary to reduce significantly the likelihood of spent pulping liquor, soap, and turpentine leaks, spills, or intentional diversions from the immediate process areas, including a schedule for implementation of such practices and controls.

#### 6. Review and Certification of BMP Plan

The BMP Plan, and any amendments thereto, must be reviewed by the senior technical manager at the mill and approved and signed by the mill manager. Any person signing the BMP Plan or its amendments must certify to the Department under penalty of law that the BMP Plan (or its amendments) has been prepared in accordance with good engineering practices and in accordance with this permit and 40 CFR Part 430. The mill is not required to obtain approval from the Department of the BMP Plan or any amendments thereto.

## 7. Record Keeping Requirements

- a. The mill must maintain on its premises a complete copy of the current BMP Plan and the records specified in paragraph b. of this section and must make such BMP Plan and records available to the Department for review upon request.
- b. The mill must maintain the following records for three years from the date they are created:
  - (1) Records tracking the repairs performed in accordance with the repair program described in paragraph 3.b.(2) of the previous sections;
  - (2) Records of initial and refresher training conducted in accordance with paragraph 3.b.(4) of the previous sections;
  - (3) Reports prepared in accordance with paragraph 3.b.(5) of the previous sections; and
  - (4) Records of monitoring required by paragraph 3.b.(10) of the previous sections and paragraph 9. of the following sections.

#### 8. Establishment of Wastewater Treatment System Influent Action Levels

- a. The mill must conduct a monitoring program, described in paragraph b. of this section, for the purpose of defining wastewater treatment system influent characteristics (or action levels), described in paragraph c. of this section, that will trigger requirements to initiate investigations on BMP effectiveness and to take corrective action.
- b. The mill must employ the following procedures in order to develop the action levels required by paragraph 8. of this section;
  - (1) Monitoring parameters: The mill must collect 24-hour composite samples and analyze the samples for a measure of organic content (e.g., Chemical Oxygen Demand (COD) or Total Organic Carbon (TOC). Alternatively, the mill may use a measure related to spent pulping liquor losses measured continuously and averaged over 24 hours (e.g., specific conductivity or color).
  - (2) Monitoring locations: For direct discharges, monitoring must be conducted at the point influent enters the wastewater treatment system. For indirect dischargers monitoring must be conducted at the point of discharge to the POTW. For the purposes of this requirement, the mill may select alternate monitoring point(s) in order to isolate possible sources of spent pulping liquor, soap, or turpentine from other possible sources of organic wastewaters that are tributary to the wastewater treatment facilities (e.g., bleach plants, paper machines and secondary fiber operations).
- c. By the date described in paragraph 10.a.(3) of the following sections, each existing discharger must complete an initial six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must establish initial action levels based on the results of this program. A wastewater treatment influent action level is a statistically determined pollutant loading determined by a statistical analysis of six months of daily measurements. The action levels must consist of a lower action level, which if exceeded will trigger the investigation requirements described in paragraph 9. of the

following section, and an upper action level, which if exceeded will trigger the corrective action requirements described in paragraph 9. of the following section.

- d. By the date prescribed in paragraph 10.a.(4) of the following sections, each existing discharger must complete a second six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must establish revised action levels based on the results of that program. The initial action levels shall remain in effect until replaced by revised action levels.
- e. By the date prescribed in paragraph 10.b. of the following sections, each new source must complete a six-month monitoring program using the procedures specified in paragraph 8.b. of this section and must develop a lower action level and an upper action level based on the results of that program.
- f. Action levels developed under this paragraph must be revised using six months of monitoring data after any change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, soap, or turpentine from the immediate process areas.

## 9. Monitoring, Corrective Action, and Reporting Requirements

- a. The mill must conduct daily monitoring of the influent to the wastewater treatment system in accordance with the procedures described in paragraph 8.b. of the previous section for the purpose of detecting leaks and spills, tracking the effectiveness of the BMPs, and detecting trends in spent pulping liquor losses.
- b. Whenever monitoring results exceed the lower action level for the period of time specified in the BMP Plan, the mill must conduct an investigation to determine the cause of such exceedance. Whenever monitoring results exceed the upper action level for the period of time specified in the BMP Plan, the mill must complete corrective action to bring the wastewater treatment system influent mass loading below the lower action level as soon as practicable.
- c. Although exceedances of the action levels will not constitute violations of the permit, failure to take the actions required by paragraph 9.b. of this section as soon as practicable will be a permit violation.
- d. The mill must report to the Department the results of the daily monitoring conducted pursuant to paragraph 9.a. of this section. Such reports must include a summary of the monitoring results, the number and dates of exceedances of the applicable action levels, and brief descriptions of any corrective actions taken to respond to such exceedances. Submission of the BMP exceedances shall be quarterly by the 28th day of April, July, and October. A summary of the daily monitoring results shall be submitted annually by the 28th day of January.

#### 10. Compliance Deadlines

- a. Existing direct and indirect dischargers: Except as provided in paragraph 10.b. of this section for new sources, indirect discharging mills must meet the compliance deadlines set forth below. Except as provided in paragraph 10.b. of this section for new sources, direct discharging mills must meet the deadlines set forth below. If a deadline set forth below has passed at the time the permit is issued, the mill must achieve compliance with the BMP requirement(s) upon the permit effective date.
  - (1) Prepare BMP Plans and certify to the Department that the BMP Plan has been prepared in accordance with the permit and 40 CFR Part 430 not later than April 15, 1999;
  - (2) Implement all BMPs specified in paragraph 3. of the previous sections that do not require the construction of containment or diversion structures or the installation of monitoring and alarm systems not later than April 15, 1999.
  - (3) Establish initial action levels required by paragraph 8.c. of the previous sections not later than April 15, 1999.
  - (4) Commence operation of any new or upgraded continuous, automatic monitoring systems that the mill determines to be necessary under paragraph 3.(3) of the previous sections (other than those associated with construction of containment structures) not later than April 17, 2000.
  - (5) Complete construction and commence operation of any spent pulping liquor, collection, containment, diversion, or other facilities, including any associated continuous monitoring systems, necessary to fully implement BMPs specified in paragraph 3, of the previous sections not later than April 16, 2001.
  - (6) Establish revised action levels required by paragraph 3. of the previous sections, by not later than January 15, 2002.

b. New Sources: Upon commencing discharge, new sources subject to this section must implement all of the BMPs specified in paragraph 3. of the previous sections, prepare the BMP Plan required by paragraph 4. of the previous sections, and certify to the Department that the BMP Plan has been prepared in accordance with this permit and 40 CFR part 430 as required by paragraph 6. of the previous sections, except that the action levels required by paragraph 8.e. of the previous sections must be established not later than 12 months after commencement of discharge, based on six months of monitoring data obtained prior to that date in accordance with the procedures specified in paragraph 8.b. of the previous sections.

# F. RECEIVING STREAM WATER QUALITY MONITORING REQUIREMENTS

During the months of June through October inclusive, the permittee shall meet the following requirements:

The permittee shall monitor the Alabama River daily by sampling River Pump discharge for Dissolved Oxygen (D.O.) as measured at the five-foot depth at approximately Corp of Engineer's River Mile 221.4.

If the D. O. measured at Alabama River Mile 221.4 is less than 5.8 mg/l or the total 24-hour flow at Jones Bluff Lock and Dam is less than 6,000 cfs for two out of three consecutive days, monitoring of the Alabama River shall be performed on a once per week basis. Determination of river flows may be based on the discharge schedule at Jones Bluff Lock & Dam. Monitoring shall consist of analysis for D.O. and temperature, as measured at the five-foot depth and shall be conducted at midstream at Alabama River Miles 221.4, 219, 216, 212, 208, 204, 200 and 196. If the D,O, measured at Alabama River Mile 221.4 is less than 5.4 mg/l, monitoring at the above stations as specified shall be performed on a daily basis until D.O. levels at Alabama River Mile 221.4 are found to be greater than 5.4 mg/l.

When D.O. concentrations at the five-foot depth, as determined by the permittee, ADEM, EPA or its successor, are less than 5.0 mg/l in the interval between Alabama River Miles 196 and 221.4, the permittee shall take the steps necessary to maintain the D,O, at levels equal to or greater than 5.0 mg/l. Such steps may include the reduction of effluent discharged or the curtailment of production. If the D. O. at the five-foot depth, in the above specified interval, is less than 5.0 mg/l as a result of water above Alabama River Mile 221.4 being below this quality, or conditions otherwise not attributable to the permittee, the permittee shall not be required to take steps beyond ceasing discharging while such conditions exist.

When the 24-hour flow at the Jones Bluff Lock and Dam is less than 6,000 cfs, the permittee's total facility discharge for DSN002 and DSN003 for any 24-hour period shall be governed by the following:

# Maximum BOD5 Discharged (lbs/day) = 3.69 \* Q \* (D.O. - 5.0), where

Q = total 24-hour flow in cfs corresponding to period of waste flow, as measured at Jones Bluff Lock and Dam.

D.O. = Dissolved Oxygen in mg/l measured at Alabama River Mile 221.4.

Monitoring data shall be submitted electronically to an email address provided to the facility by the Department on a monthly basis by the 28th day of the following month.

# G. REQUIRED TEST METHODS AND MINIMUM LEVELS FOR INTERNAL BLEACH PLANT MONITORING AND REPORTING

Parameter	Test Method	Minimum Level <sup>5</sup>
TCDD <sup>3</sup>	1613	10 pg/l
TCDF⁴	1613	10 pg/1
Chloroform	6011	$0.5 \text{ ug/l}^2$
Trichlorosyringol	1653	2.5 ug/l
3,4,5 - Trichlorocatechol	1653	5.0 ug/l
3,4,6 - Trichlorocatechol	1653	5.0 ug/l
3,4,5 - Trichloroguaiacol	1653	2.5 ug/l
3,4,6 - Trichloroguaiacol	1653	2.5 ug/l
4,5,6 - Trichloroguaiacol	1653	2.5 ug/l
2,4,5 - Trichlorophenol	1653	2.5 ug/l
2,4,6 - Trichlorophenol	1653	2.5 ug/l
Tetrachlorocatechol	1653	5.0 ug/l
Tetrachloroguaiacol	1653	5.0 ug/l
2,3,4,6-Tetrachlorophenol	1653	2.5 ug/l
Pentachlorophenol	1653	5.0 ug/l
AOX	1650	20 ug/l

Or other method as approved in 40 CFR 136

An ML for chloroform was not promulgated in the Cluster Rules. The value in this permit is considered a matrix specific ML, typical of levels achieved in paper mill effluents as demonstrated through NCASI studies.

<sup>&</sup>lt;sup>3</sup> TCDD means 2,3,7,8-tetrachlorodibenzo-p-dioxin

<sup>4</sup> TCDF means 2,3,7,8-tetrachlorodibenzo-p-furan

Minimum level means the level at which the analytical system gives recognizable signals and an acceptable calibration point.

**JEFFERY W. KITCHENS DEPUTY DIRECTOR** 



KAY IVEY GOVERNOR

# **Alabama Department of Environmental Management** adem.alabama.gov

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

#### **FACT SHEET**

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

Date: April 30, 2025 Prepared By: Ed Hughes

NPDES Permit No. AL0003018

# 1. Name and Address of Applicant:

International Paper-Riverdale 601 County Road 78 Selma, AL 36703

#### Name and Address of Facility:

International Paper - Riverdale 601 County Rd 78 Selma, AL 36703

# Description of Applicant's Type of Facility and/or Activity Generating the Discharge:

The facility is a Kraft pulp and paper mill which produces white top linerboard and bleached printing paper. The mill's operating areas include a woodyard, pulping, bleach plants, causticizing and lime recovery, recovery boilers, a power boiler, bark boilers, a tall oil reactor, wastewater treatment, and reciprocating internal combustion engines.

# 4. Applicant's Receiving Waters

Receiving Waters

Classification

Alabama River

Fish and Wildlife (F&W)

Unnamed Tributary to Alabama River

Fish and Wildlife (F&W)

For the Outfall latitude and longitude, see the permit application.

#### **Permit Conditions:**

See attached Rationale and Draft Permit.

#### 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:



(256) 340-9359 (FAX)

# Daphne Y. Lutz, Chief ADEM-Water Division 1400 Coliseum Blvd

[Mailing Address: Post Office Box 301463; Zip 36130-1463] Montgomery, Alabama 36110-2400 (334) 271-7823

water-permits@adem.alabama.gov

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:

Daphne Y. Lutz, Chief
ADEM-Water Division
1400 Coliseum Blvd
[Mailing Address: Post Office Box 301463; Zip 36130-1463]
Montgomery, Alabama 36110-2400
(334) 271-7823
water-permits@adem.alabama.gov

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 <a href="http://app.adem.alabama.gov/eFile/">http://app.adem.alabama.gov/eFile/</a> 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 36110-2400

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

#### ADEM PERMIT RATIONALE

PREPARED DATE: April 30, 2025 PREPARED BY: Ed Hughes REVISED DATE: August 20, 2025 REVISED DATE: October 8, 2025 REVISED DATE: November 3, 2025 RESIVED BY: Victoria Kim

Permittee Name: International Paper – Riverdale

Facility Name: International Paper – Riverdale

Permit Number: AL0003018

PERMIT IS REISSUANCE DUE TO EXPIRATION

#### **DISCHARGE SERIAL NUMBERS (DSN) & DESCRIPTIONS:**

**DSN002/DSN003:** Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities

**DSN004 & DSN006:** Stormwater from process areas

**DSN005:** Storm water from process areas and fire tank overflow

DSN03A: Plant #1 (Hardwood) Bleach Plant

**DSN03B:** Plant #2 (Softwood) Bleach Plant

**INDUSTRIAL CATEGORY:** 40 CFR Part 430 – The Pulp, Paper, and Paperboard Point Source Category

430.22(a), 403.23, 430.24(a) & (d) Subpart B – Bleached Papergrade Kraft and

Soda Subcategory

430.102(a), 430.104 Subpart J – Secondary Fiber Non-Deink Subcategory

MAJOR: Y

#### STREAM INFORMATION:

Receiving Stream: Alabama River / Unnamed Tributary to Alabama River

Classification: Fish & Wildlife / Fish & Wildlife

 River Basin:
 Alabama Basin

 7Q10:
 3815 cfs / 0 cfs

 7Q2:
 6031 cfs / 0 cfs

 1Q10:
 2861 cfs / 0 cfs

 Annual Average Flow:
 27,310 cfs / 0 cfs

303(d) List: No / No
Impairment: N/A
TMDL: No /No

## **DISCUSSION:**

This facility produces printing and communication paper from bleached kraft and white top and brown linerboard for packaging materials using bleached pulp and OCC recycle pulp.

ADEM Administrative Rule 335-6-10-.12 requires applicants to 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. Therefore, the applicant is not required to demonstrate that the discharge is necessary for economic and social development.

# DSN0021/DSN0031: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities

							1		1	1	1
Parameter	Quantity of	or Loading	Units	Qua	ality or Concentration	n	Units	Sample Frequency	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310)	23583	45976	lbs/day	****	****	****	****	3X Weekly test	Composite	All Months	EGL
Effluent Gross Value	Monthly Average	Maximum Daily	103/day					324 Weekly test	Composite	All Wollins	LGL
pH (00400) Effluent Gross Value	****	****	*****	6.0 Minimum Daily	****	9.0 Maximum Daily	S.U.	Daily	Grab	All Months	EGL
Solids, Total Suspended (00530)	48499	91377	lbs/day	****	****	****	****	3X Weekly test	Commonito	All Months	EGL
Effluent Gross Value	Monthly Average	Maximum Daily	108/443					3A Weekly lest	Composite	All Molitis	EGL
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	All Months	ВРЈ
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	*****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct	ВРЈ
Nitrite Plus Nitrate Total 1 Det. (As N) (00630) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct	ВРЈ
Phosphorus, Total (As P) (00665) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct	ВРЈ
Pentachlorophenol (39032) Effluent Gross Value	****	0 Maximum Daily	lbs/day	****	****	****	****	Monthly	Composite	All Months	BPJ
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	****	****	****	****	Daily	Totalizer	All Months	ВРЈ
# of Events (51484) Effluent Gross Value	****	****	****	****	****	0 Maximum Daily	# Exceedances	Monthly	Not Applicable	Jun, Jul, Aug, Sep, Oct	WQBEL
Certification - River Monitoring (51946) Effluent Gross Value	****	****	****	****	****	0 Maximum Daily	Yes=0; No=1	Monthly	Not Applicable	Jun, Jul, Aug, Sep, Oct	WQBEL
Trichlorophenol (81848) Effluent Gross Value	****	0 Maximum Daily	lbs/day	****	****	****	****	Monthly	Composite	All Months	ВРЈ

# DSN0022/DSN0032: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities

Parameter	Quantity of	or Loading	Units	Qual	ity or Concentrat	ion	Units	Sample Frequency	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	18888 Monthly Average	37487 Maximum Daily	lbs/day	****	****	****	****	3X Weekly test	Composite	All Months	EGL
pH (00400) Effluent Gross Value	****	****	****	6.0 Minimum Daily	****	9.0 Maximum Daily	S.U.	Daily	Grab	All Months	EGL
Solids, Total Suspended (00530) Effluent Gross Value	34531 Monthly Average	67270 Maximum Daily	lbs/day	****	****	****	****	3X Weekly test	Composite	All Months	EGL
Nitrogen, Ammonia Total (As N) (00610) Effluent Gross Value	ate ate ate ate	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	All Months	BPJ
Nitrogen, Kjeldahl Total (As N) (00625) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct	, ВРЈ
Nitrite Plus Nitrate Total 1 Det. (As N) (00630) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct	ВРЈ
Phosphorus, Total (As P) (00665) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Monthly	Composite	Apr, May, Jun, Jul, Aug, Sep, Oct	BPJ
Pentachlorophenol (39032) Effluent Gross Value	****	0 Maximum Daily	lbs/day	****	****	****	****	Monthly	Composite	All Months	BPJ
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	****	****	****	****	Daily	Totalizer	All Months	ВРЈ
# of Events (51484) Effluent Gross Value	****	****	****	****	****	0 Maximum Daily	# Exceedances	Monthly	Not Applicable	Jun, Jul, Aug, Sep, Oct	WQBE
Certification - River Monitoring (51946) Effluent Gross Value	***	****	****	****	****	0 Maximum Daily	Yes=0; No=1	Monthly	Not Applicable	Jun, Jul, Aug, Sep, Oct	WQBEI
Trichlorophenol (81848) Effluent Gross Value	****	0 Maximum Daily	lbs/day	****	****	****	****	Monthly	Composite	All Months	ВРЈ

# DSN002Q/DSN003Q: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities – Certification of periodic submittals

Parameter	Quantity o	or Loading	Units	Q	uality or Concentration	on	Units	Sample Frequency	Sample Type	Seasonal	Basis
Certification-BMP Submittal (85873) Effluent Gross Value	****	****	****	****	****	0 Maximum Daily	Yes=0; No=1	Quarterly	Not Applicable	All Months	EGL

# DSN002T/DSN003T: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities

Parameter	Quantity	or Loading	Units		Quality or Concent	ration	Units	Sample Frequency	Sample Type	Seasonal	Basis
Toxicity, Ceriodaphnia Chronic (61426) Effluent Gross Value	***	0 Maximum Daily	pass=0; fail=1	***	****	मंद मंद मंद मंद	ate ate ate ate ate	Annually	Composite	All Months	WQBEL
Toxicity, Pimephales Chronic (61428) Effluent Gross Value	****	0 Maximum Daily	pass=0; fail=1	****	****	******	****	Annually	Composite	All Months	WQBEL

# DSN002Y1/DSN003Y1: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities

Parameter	Quantity (	or Loading	Units	Qı	uality or Concentration	on	Units	Sample Frequency	Sample Type	Seasonal	Basis
Halogens, Adsorbable Organic (03594) Effluent Gross Value	1552 Monthly Average	2369 Maximum Daily	lbs/day	***	****	神神神神	****	Annually	Composite	All Months	EGL
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (34675) Effluent Gross Value	**************************************	0.00000397 Maximum Daily	lbs/day	alc alc alc alc alc	****	(Report) Maximum Daily	ppq	Annually	Composite	All Months	WQBEL

# DSN002Y2/DSN003Y2: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities

Parameter	Quantity (	or Loading	Units	Qı	uality or Concentratio	n	Units	Sample Frequency	Sample Type	Seasonal	Basis
Halogens, Adsorbable Organic (03594) Effluent Gross Value	613 Monthly Average	935 Maximum Daily	lbs/day	* * * *	***	***	****	Annually	Composite	All Months	EGL
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (34675) Effluent Gross Value	****	0.00000397 Maximum Daily	lbs/day	非非非非非	非非非非非	(Report) Maximum Daily	ppq	Annually	Composite	All Months	WQBEL

# DSN004Q & DSN006Q: Storm water from process areas

Parameter	Quantity of	or Loading	Units	Qua	ality or Concentra	tion	Units	Sample Frequency	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
pH (00400) Effluent Gross Value	****	****	****	(Report) Minimum Daily	****	(Report) Maximum Daily	S.U.	Quarterly	Grab	All Months	BPJ
Solids, Total Suspended (00530) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Oil & Grease (00556) Effluent Gross Value	****	****	****	****	****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	****	****	****	****	Quarterly	Estimate	All Months	ВРЈ

# DSN005Q: Storm water from process areas and fire tank overflow

Parameter	Quantity of	or Loading	Units	Qua	ality or Concentrat	tion	Units	Sample Frequency	Sample Type	Seasonal	Basis
BOD, 5-Day (20 Deg. C) (00310) Effluent Gross Value	****	****	****	ate ate ate ate	****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	ВРЈ
pH (00400) Effluent Gross Value	****	****	****	(Report) Minimum Daily	****	(Report) Maximum Daily	S.U.	Quarterly	Grab	All Months	BPJ
Solids, Total Suspended (00530) Effluent Gross Value	****	****	****	****	****	(Report) Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Oil & Grease (00556) Effluent Gross Value	****	****	****	****	****	15 Maximum Daily	mg/l	Quarterly	Grab	All Months	BPJ
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	****	****	****	****	Quarterly	Estimate	All Months	ВРЈ

# DSN03A1: Plant #1 (Hardwood) Bleach Plant

Parameter	Quantity of	or Loading	Units	Qı	uality or Concentration	on	Units	Sample Frequency	Sample Type	Seasonal	Basis
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	****	****	****	****	Monthly	Calculated	All Months	ВРЈ

# DSN03AS: Plant #1 (Hardwood) Bleach Plant

Parameter	Quantity o	r Loading	Units	Q	uality or Concentra	tion	Units	Sample Frequency	Sample Type	Seasonal	Basis
Chloroform (32106) Effluent Gross Value	5.285 Monthly Average	8.833 Maximum Daily	lbs/day	***	****	****	****	Semi- Annually	Grab	All Months	EGL
2,4,6-Trichlorophenol (34621) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
2,3,7,8-Tetrachlorodibenzo-P- Dioxin (34675) Effluent Gross Value	****	****	****	****	****	9.9999 Maximum Daily	pg/l	Semi- Annually	Composite	All Months	EGL
2,3,7,8 Tetrachlorodibenzofuran (TCDF) (38691) Effluent Gross Value	और और और और	मेर मेर मेर मेर	****	***	****	31.9 Maximum Daily	pg/l	Semi- Annually	Composite	All Months	EGL
Pentachlorophenol (39032) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
3,4,6-Trichloroguaiacol (51022) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
3,4,6-Trichlorocatechol (51024) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
3,4,5-Trichloroguaiacol (61024) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
3,4,5 Trichlorocatechol (73037) Effluent Gross Value	मंद्र मंद्र मंद्र मंद्र	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
Tetrachloroguaiacol (73047) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
Tetrachlorocatechol (73050) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
Trichlorosyringol (73054) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
4,5,6-Trichloroguaiacol (73088) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
2,4,5-Trichlorophenol (1) (77687) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
2,3,4,6-Tetrachlorophenol (77770) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL

# DSN03B1: Plant #2 (Softwood) Bleach Plant (Tier I) Plant #2 Bleach Plant (Tier II)

Parameter	Quantity of	or Loading	Units	Qı	nality or Concentration	on	Units	Sample Frequency	Sample Type	Seasonal	Basis
Flow, In Conduit or Thru Treatment Plant (50050) Effluent Gross Value	(Report) Monthly Average	(Report) Maximum Daily	MGD	ale ale ale ale	ale ale ale ale	ale ale ale ale ale	****	Monthly	Calculated	All Months	ВРЈ

# DSN03BS: Plant #2 (Softwood) Bleach Plant (Tier I) Plant #2 Bleach Plant (Tier II)

Parameter	Quantity of	r Loading	Units	(	Quality or Concentra	tion	Units	Sample Frequency	Sample Type	Seasonal	Basis
Chloroform (32106) Effluent Gross Value	5.029 Monthly Average	8.406 Maximum Daily	lbs/day	मंद मोद मोद मोद मोद	****	***	****	Semi- Annually	Grab	All Months	EGL
Chloroform (32106) O - See Comments Below	4.074 Monthly Average	6.809 Maximum Daily	lbs/day	****	****	****	****	Semi- Annually	Grab	All Months	EGL
2,4,6-Trichlorophenol (34621) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
2,3,7,8-Tetrachlorodibenzo-P- Dioxin (34675) Effluent Gross Value	ale ale ale ale	****	****	****	ate ate ate ate	9.9999 Maximum Daily	pg/l	Semi- Annually	Composite	All Months	EGL
2,3,7,8 Tetrachlorodibenzofuran (TCDF) (38691) Effluent Gross Value	ate ate ate ate	at at at at	****	****	****	31.9 Maximum Daily	pg/l	Semi- Annually	Composite	All Months	EGL
Pentachlorophenol (39032) Effluent Gross Value	****	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
3,4,6-Trichloroguaiacol (51022) Effluent Gross Value	ale ale ale ale	* * * * *	****	*****	******	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
3,4,6-Trichlorocatechol (51024) Effluent Gross Value	* * * *	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
3,4,5-Trichloroguaiacol (61024) Effluent Gross Value	***	***	****	****	***	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
3,4,5 Trichlorocatechol (73037) Effluent Gross Value	ate ate ate ate	ale ale ale ale	****	ale ale ale ale	मंद्र मंद्र मंद्र मंद्र	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
Tetrachloroguaiacol (73047) Effluent Gross Value	ale ale ale ale	****	****	****	मंद मोद मोद मोद	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
Tetrachlorocatechol (73050) Effluent Gross Value	***	****	****	****	****	4.9999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
Trichlorosyringol (73054) Effluent Gross Value	****	****	****	ate ate ate ate	मंद्र मंद्र मंद्र मंद्र	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
4,5,6-Trichloroguaiacol (73088) Effluent Gross Value	非非非非	****	****	*****	ale ale ale ale	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL
2,4,5-Trichlorophenol (1) (77687) Effluent Gross Value	***	****	****	***	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL

Parameter	Quantity (	or Loading	Units	Q	uality or Concentratio	on	Units	Sample Frequency	Sample Type	Seasonal	Basis
2,3,4,6-Tetrachlorophenol (77770) Effluent Gross Value	****	****	****	****	****	2.4999 Maximum Daily	ug/l	Semi- Annually	Composite	All Months	EGL

# \*Basis for Permit Limitation

- BPJ Best Professional Judgment
   WQBEL Water Quality Based Effluent Limits
   EGL Federal Effluent Guideline Limitations
- 303(d) 303(d) List of Impaired Waters
- TMDL Total Maximum Daily Load Requirements

#### Discussion

The current permit established limits based on two phases of production. The first tier was based on federal guidelines at 40 CFR Part 430, Subpart B and Subpart I (Secondary Fiber Deink Subcategory). The second tier accounted for a proposed modification of the mill to convert paper machine PM15 to produce white top and brown linerboard. Upon completion of the conversion, the facility became subject to Subpart J (Secondary Fiber Non-Deink Subcategory). The plant conversion was completed during the term of the existing permit and requirements related to the second phase of that permit became effective. The same guidelines Subpart B (Bleached Kraft) and Subpart J (Secondary Fiber Non-Deink Subcategory) will be used to determine guideline based limitations in this issuance.

# DSN002/DSN003: Process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities

(Note: sampling for all parameters discussed below for outfalls DSN002 and DSN003 is to be performed at outfall DSN003 only, except on days when the entire discharge is routed through DSN002, when sampling shall be performed at DSN002.)

# Federal Effluent Guideline Limitations (EGL)

Parameters based on EGL have had effluent guidelines established under the 40 CFR Part 430 – The Pulp, Paper, and Paperboard Point Source Category. The applicable subparts are Subpart B and Subpart J. Calculations of effluent guideline-based limits are attached.

#### pH

Limitations of 6.0 to 9.0 S.U. for pH are consistent with applicable effluent guideline requirements.

# Biochemical Oxygen Demand 5-day (BOD<sub>5</sub>), Total Suspended Solids (TSS)

Adding the allocations calculated for Subpart B and J shows the calculated limits are more stringent than the existing permit requirements and will be used in this issuance. The monitoring frequency for both BOD<sub>5</sub> and TSS is proposed to continue at three times per week.

#### Pentachlorophenol\*, Trichlorophenol\*

These parameters are regulated under Subpart B and Subpart J. 40 CFR Part 430.24(d) and 430.104 state that the effluent limitations shall apply unless the discharger certifies non-use of the compounds as biocides. Historically, calculated limitations based on effluent guidelines have been established for Pentachlorophenol and Trichlorophenol in the permit for the main process wastewater outfall. This permit issuance proposes zero discharge limitations for these parameters on the basis of historical non-use certifications submitted by the facility and the expected phase out of pentachlorophenol from the wood industry within the next few years. The requirement for the facility to submit a certification of non-use of chlorophenolic-containing biocides shall remain.

\*In lieu of monitoring for these parameters, the facility can submit a certification of non-use by reporting \*9 on the discharge monitoring report.

# Adsorbable Organic Halogens (AOX)

These limits are based on estimated bleach plant production. The calculated limits are more stringent than existing limitations and are proposed to be required in this issuance.

The permittee has requested that the monitoring frequency be reduced from semi-annually to annual testing. Based on *EPA's Interim Guidance for Performance – Based Reductions of NPDES Monitoring Frequencies*, because the coefficient of variation is 21.11% and the results are not near the permit limit (long term average is 21.4% of permit limit), the monitoring frequency is being reduced to annual testing. This reduction in monitoring frequency is consistent with ADEM permitting procedures.

#### **Landfill Leachate**

The facility discharges landfill leachate through its process discharge outfalls (DSN002/DSN003). Discharge of landfill leachate is regulated by 40 CFR Part 445; however, 40 CFR Part 445.1(e) specifies that these regulations "do not apply to the discharges of landfill wastewater from landfills operated in conjunction with

other industrial or commercial operations when the landfill only receives wastes generated by the industrial or commercial operation directly associated with the landfill."

## Water Quality Based Effluent Limits (WQBEL)

#### pH

ADEM Administrative Code, Division 6 Regulations, specifically 335-6-10-.09(5)(e)2 – Specific Water Quality for Fish & Wildlife classified streams states: "Sewage, industrial waste or other wastes shall not cause the pH to deviate more than one unit from then normal or natural pH, nor be less than 6.0, nor greater than 8.5 standard units." The current permit has pH limitations from 6.0 to 9.0 S.U. at Outfalls DSN002/DSN003. The effluent guidelines that the facility are subject to provide for a daily minimum pH of 6.0 S.U. and a daily maximum of 9.0 S.U. The discharge from the facility is not expected to adversely affect the instream pH based on the ratio of low effluent flow to stream flow; therefore, pH limitations from 6.0 to 9.0 S.U. are proposed to continue at DSN002/DSN003 in this permit issuance based on water quality criteria, effluent guidelines, and BPJ. Monitoring for pH is proposed to continue at a daily frequency.

#### Biochemical Oxygen Demand (5 day)

BOD5 is regulated by 40 CFR Part 430; however, to ensure protection of water quality during periods of low stream flow, BOD will continue to be regulated by an equation which, based on historic data, has been proven to be effective in ensuring that the facility's discharge does not cause a violation of the stream dissolved oxygen standard.

BOD5 (lbs/day) = 3.69 \* (D.O. - 5.0)

Where, Q = total 24-hour flow in the Alabama River in cfs, and D.O. =Instream Dissolved Oxygen in mg/L

BOD5 shall be regulated by this equation during periods when the 24-hour flow in the Alabama River at the Jones Bluff Lock and Dam is less than 6000 cfs. To ensure compliance during these periods, the permittee will be required to report the number of non-compliance events with this limitation on the discharge monitoring report under the "# of events" parameter.

#### **TCDD**

TCDD (2,3,7,8 – Tetrachlorodibenzo-P-Dioxin) is limited internally at DSN003A and DSN003B by the federal effluent guidelines at 40 CFR 430.24. Compliance with water quality based limits which are calculated using the Human Health Criteria for fish consumption of 2.7 x 10 <sup>-11</sup> ug/L will be continued at DSN002/DSN003. Calculation of this limit is shown below:

TCDD (lbs/day) =  $(2.7 \times 10^{-11} \text{ mg/L})(8.34)(17650.9 \text{ MGD*}) = 0.00000397 \text{ lbs/day}$ 

\*The flow used is the annual average river flow.

Monitoring will be continued on an annual basis.

## **Biomonitoring Requirements**

In order to evaluate whole effluent toxicity, chronic toxicity monitoring is proposed to continue in this permit issuance. Chronic toxicity monitoring is appropriate based on the receiving stream's water use classification and the ratio of flow in the receiving stream at low flow conditions to the effluent flow being less than 100:1. A CORMIX model (see attached) was previously completed by the Department's Water Quality section in 2018. Based on this model, the instream waste concentration (IWC) is 3.78% for a 30 MGD effluent flow rate. In order to be consistent with toxicity monitoring protocols, the IWC is rounded to 4.0%. Annual chronic toxicity testing is proposed to continue in this permit issuance at an IWC of 4.0%.

## Numeric Reasonable Potential Analysis (RPA)

A numeric RPA (see attached) was performed for DSN002/DSN003 using analytical data submitted from EPA Form 2C in the facility's application to determine if the effluent discharge to the receiving stream would cause a potential to violate water quality criteria at the point of discharge. A long-term average flow of 36.3 MGD was used based on the last two years of DMR data submitted by the facility. No parameters included in the analysis showed a reasonable potential to violate water quality standards; therefore, no additional limitations are proposed in this permit issuance.

# Best Professional Judgment (BPJ)

The parameters of concern for this facility are based on the parameters of concern listed in EPA form 2C and from the current permit. These parameters are consistent with similar facilities in the state and have been proven to be reflective of the operations at this facility.

#### **Flow**

Flow monitoring shall be totalized daily readings for both DSN002 and DSN003.

#### **Nutrients**

Consistent with requirements for all major classified facilities, monitoring for Ammonia (as N), Total Kjeldahl Nitrogen, Nitrates + Nitrates and Total Phosphorus will be required. Monitoring is to be performed monthly during the growing season (April – October) except for Ammonia (as N) which is proposed to be monitored year-round at a once per month frequency. The year-round monitoring for Ammonia is consistent with similar discharges from other permitted facilities.

#### DSN003A - Hardwood Bleach Plant Requirements

#### DSN003B - Softwood Bleach Plant Requirements

As specified in 40 CFR Part 430.24(a)(1), monitoring requirements are imposed on each fiber line not using an exclusively TCF bleaching process. The requirements for both lines were determined by the individual production provided in the permittee's application. A summary of the effluent guideline calculations are attached.

#### Flow

Flow will continue to be reported monthly for each line.

## **TCDD**, Chlorinated Phenolics

The daily maximum limitations will be expressed as less than the minimum level of detection specified at 40 CFR Part 430.01(i). Monthly average limitations are not being imposed. Monitoring will continue to be required on a semi-annual basis.

#### **TCDF**

The daily maximum limit imposed by the guidelines is 31.9 picograms per liter (pg/L). No monthly average limit is imposed.

#### **AOX**

Limitations for AOX will be applied at DSN002/DSN003 as discussed above.

#### **Chloroform**

Limitations are production based. Calculated limits are more stringent than existing limits and will be imposed in this pemit issuance.

# <u>DSN004, DSN006 – Stormwater from process areas</u> <u>DSN005 – Stormwater from process areas and fire tank overflow</u>

#### **Flow**

Flow from stormwater outfalls will continue to be reported based on estimates.

#### BOD<sub>5</sub>, TSS

Based on the operations occurring onsite and historical submitted data, monitoring for BOD<sub>5</sub> and TSS is proposed to continue in this permit issuance. The data collected from the monitoring of these pollutants will be useful in determining the effectiveness of the facility's BMP plan.

#### pН

Monitoring without limitations for pH is proposed for all stormwater outfalls in this permit issuance.

#### Oil & Grease

Oil & Grease monitoring is proposed for all stormwater outfalls in this permit issuance. The daily maximum limitation of 15 mg/l should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs. This limitation is consistent with monitoring requirements for storm water outfalls at other similarly permitted facilities in the state.

# Best Management Practices (BMP) Plan

BMPs are believed to be the most effective way to control the contamination of stormwater from areas of industrial activities. This facility is required to maintain a BMP plan. The requirements of the BMP plan call for minimization of stormwater contact with waste materials, products and by-products, and for prevention of spills or loss of fluids from equipment maintenance activities. The effectiveness of the BMPs will be measured through the monitoring of the pollutants of concern.

#### 316(b) Cooling Water Intake Structure Requirements

Section 316(b) of the Clean Water Act requires that facilities minimize adverse environmental impacts resulting from the operation of cooling water intake structures (CWIS) by using the "best technology available" (BTA). U.S. EPA has promulgated rules to implement these requirements under Phase I, Phase II, and Phase III of the rules; however, many facilities that operate intake structures do not fall into these categories and are therefore classified as miscellaneous facilities. For these miscellaneous facilities, a BTA determination must be made using BPJ.

The cooling water intake structure (CWIS) used by the permittee has been evaluated using available information. At this time, the Department has determined, using BPJ, that the cooling water intake structure represents the best technology available (BTA) to minimize adverse environmental impact in accordance with Section 316 (b) of the Federal Clean Water Act (33 U.S.C. section 1326) due to the through-screen design intake flow velocity being near 0.5 ft/s, the use of fish detraction technology (i.e. rotating screen) and the design intake flow is less than 5% of the mean annual flow.

The requirements that facilities must comply with are listed below:

- 1. The permittee shall submit the following information at least 180 days prior to expiration of this permit:
  - design in-take flow of the CWIS;
  - percentage of in-take flow, based on highest monthly average in last 5 years, used for cooling purposes;
  - an estimate of the in-take flow reduction at the facility based upon the use of a 100 percent (or some lesser percentage) closed-cycle re-circulating cooling water system compared to a conventional oncethrough cooling water system;
  - through screen design in-take flow velocity;
  - any impingement and entrainment data that may have been collected based on the operation of the facility's CWIS, collected since the effective date of this NPDES permit; and,

- a detailed description of any changes in the operation of the CWIS, or changes in the type of technologies used at the CWIS such as screens or other technologies affecting the rates of impingement and/or entrainment of fish and shellfish.
- 2. The permittee is required to operate and maintain the CWIS in a manner that minimizes impingement and entrainment levels. Documentation detailing the steps that have and are being taken to minimize the impingement and entrainment levels shall be maintained on site and made available upon request.
- 3. The Permittee must keep records of all submissions that are part of the permit application pertaining to the CWIS until the subsequent permit is issued to the Permittee.
- 4. Nothing in this Permit authorizes take for the purposes of a facility compliance with the Endangered Species Act.

# 303(d) List of Impaired Waters/Total Maximum Daily Load (TMDL)

The receiving streams are not listed on the most recent 303(d) List of Impaired Waters nor has a TMDL been developed.

#### **Stream Monitoring**

#### **Stream Monitoring Requirements**

The facility is required to conduct river monitoring surveys on a periodic basis for the months of June through October during periods when the dissolved oxygen at river mile 221.4 is less than 5.8 mg/L or the total 24-hour flow at James Bluff Lock and Dam is less than 6000 cfs for two out of three consecutive days. Currently the permittee is required to perform this testing twice weekly when the above criteria is met. The permittee has requested that this testing be reduced to one time per week based on over 600 data points showing the low coefficient of variability of testing results and 100% compliance with the water quality standard of 5.0 mg/L minimum instream DO. Based on the information provided and review from the Department's Water Quality section, this permit issuance proposes once per week testing.

#### **River Monitoring Certification**

In order to show compliance with the submittal of the stream monitoring data, the facility will be required to indicate, through the discharge monitoring report, that such data was submitted no later than 28 days following the last day of the reporting period as required by Part IV.F. of the permit.

# August 20, 2025 Revision

The facility submitted comments on the draft permit on June 19, 2025 (see attached). The response and/or revision to each request is addressed below.

# Nitrogen, Ammonia Total (As N)

The permit has been revised to require year-round monitoring for Ammonia. This approach is consistent with permitting requirements imposed on other pulp and paper mills and similar facilities in Alabama with comparable discharges. Seasonal temperatures may significantly impact microbial activity that breaks down Ammonia. Year-round data collection provides additional information on effluent variability and receiving stream impacts outside of the traditional growing season. The Department has determined that year-round monitoring for Ammonia is appropriate in this permit issuance.

# Pentachlorophenol and Trichlorophenol

EPA issued a Final Registration Review Decision (FD) for pentachlorophenol on December 22, 2021. The FD requires a nationwide phase-out of pentachlorophenol over five years, with use prohibited after February 28, 2027. Though it was noted that (1) utility poles and cross arms treated with pentachlorophenol may continue to be transported, sold, and installed after the phase-out, (2) existing pentachlorophenol-treated wood in service does not need to be replaced,

and (3) trace amounts may persist in treatment systems and tanks during the transition to alternative chemistries, the FD also states that consultation with utility companies supported the fact that a 5-year phase-out period would be adequate for the transition.

The Department's protocol to address the phase out of pentachlorophenol is to impose zero discharge limitations for Pentachlorophenol and Trichlorophenol in paper mill permits where facilities have historically certified non-use of chlorophenolic-containing biocides and have indicated below detection results for Pentachlorophenol and Trichlorophenol on EPA Form 2C in the application. For facilities that do not use chlorophenolic-containing biocides, certification of non-use remains the applicable mechanism for demonstrating compliance, and therefore, the permit will continue to require certification of non-use, consistent with the requirements of 40 CFR Part 430.24(d) and 430.104. The final permit will retain a zero discharge limitation for Pentachlorophenol and Trichlorophenol. If the facility decides to use a chlorophenolic-containing substance, the facility shall notify the Department prior to any discharge occurring.

#### # of Events

The requirement for reporting the number of BOD<sub>5</sub> exceedance events contained a typographical error in the draft permit. The draft incorrectly referenced all months of the year. The permit has been revised to clarify that the requirement applies only during the months of June, July, August, September, and October, consistent with Part IV.F and the corresponding river monitoring requirements.

# Oil & Grease

The requirement for Oil & Grease monitoring from stormwater outfalls has been retained. Although the facility reported non-detect results in the renewal application, ongoing monitoring is necessary to verify continued control of potential oil and grease contributions from stormwater runoff associated with industrial activity. The maximum daily limit of 15 mg/L is based on best professional judgment (BPJ) considering effluent guideline references, EPA multisector stormwater general permit benchmarks, and the Department's permitting precedent. The monitoring requirement and limit will remain as written. As stated in the above rationale, the daily maximum limitation of 15 mg/l should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs. This limitation is consistent with monitoring requirements for storm water outfalls at other permitted industrial facilities.

## **Chloroform Limits**

The Department agrees that the chloroform limits for DSN03A and DSN03B were inadvertently transposed in the draft permit. The permit has been corrected to align with the rationale and renewal application data as follows:

DSN03A: 5.285 lbs/day (monthly average), 8.833 lbs/day (maximum daily) DSN03B: 5.029 lbs/day (monthly average), 8.406 lbs/day (maximum daily)

## Receiving Stream Water Quality Monitoring Requirements

The facility proposed to allow determination of river flows based on the discharge schedule at Jones Bluff Lock & Dam. The Department has accepted this proposal. The condition has been inserted in the third paragraph in Part IV.F. of the permit.

#### Best Management Practices (BMP) Plan

The Department has updated the BMP language located in Part IV.A.2.g of the Permit. The Permit Condition now states "Provide for routine inspections, or days during which the facility is manned, of any structures that function to prevent stormwater pollution or to remove pollutants from stormwater and of the facility in general. Routine inspections should be done at a frequency to ensure that the BMP is continually implemented and effective and in no case less frequent than once per year." This clarification was added to be consistent with 40 CFR Part 122.43(c).

# October 8, 2025 Revision

The facility submitted a revised application on September 30, 2025, to incorporate process modifications scheduled to occur in early 2026. This revision establishes permit conditions applicable to the modification of No. 16 Paper Machine (PM16) and associated fiber line changes.

# **Tier II Operation**

Tier II begins upon completion of the PM16 modification project and commencement of production under the revised configuration. To clearly delineate requirements for Tier I and Tier II operation, footnotes have been added throughout Part I.A of the permit to identify the applicability of limitations and monitoring requirements under each tier. The permittee is required to notify the Department in writing within thirty (30) days of initiating Tier II operation.

#### **Outfall DSN03A Removal**

Outfall DSN03A, which under Tier I operations discharges effluent from Bleach Plant No. 1 (BP01) upstream of the alkaline sewer, will no longer be necessary since BP01 is scheduled to be permanently shut down as part of the planned process modifications. Accordingly, Outfall DSN03A DMRs should report "No Discharge" for Tier II operation.

# **DSN003B Description Update**

Effluent from Bleach Plant No. 2 (BP02) is discharged through Internal Outfall DSN03B upstream of the alkaline sewer. Under Tier I operation, BP02 processes only softwood fiber and is described in the permit as "Plant #2 (Softwood) Bleach Plant." With the transition to Tier II, BP02 will process both hardwood and softwood fiber. The Department has therefore revised the description of Outfall DSN03B by removing the designation "(Softwood)" to reflect this operational change.

#### **Technology-Based Effluent Limitations (TBELs)**

The Department reviewed the updated Form 2C application and recalculated technology-based effluent limitations under the applicable ELGs at 40 CFR Part 430. Following the project, the facility will continue to be subject to Subpart B (Bleached Papergrade Kraft and Soda) and Subpart J (Secondary Fiber Non-Deink), and will also operate under Subpart C (Unbleached Kraft). The parameters of concern (BOD<sub>5</sub>, TSS, AOX, chloroform, pentachlorophenol, and trichlorophenol) remain unchanged; however, the recalculated TBELs for BOD<sub>5</sub>, TSS, AOX, and chloroform are more stringent than those in the existing permit. These revised limitations will therefore take effect under Tier II. Pentachlorophenol and trichlorophenol will continue to be controlled through certification of non-use, consistent with 40 CFR 430.24(d), 430.34 and 430.104, and Department policy related to the phase-out of chlorophenolic-containing biocides.

The revised TBELs applicable to Tier II operation are included in Part I.A of the permit.

# November 3, 2025 Revision

The facility submitted comments on the draft permit on November 3, 2025. The response and/or revision to each request is addressed below.

#### Mill Manager

The Mill Manager name has been updated and will be reflected in subsequent permit actions.

#### **DSN0022, DSN0032 - Page 6 of 46**

The monitoring period for Nitrogen, Ammonia Total was listed as year-round for Tier I outfalls; however, Tier II outfalls were only required April-October. This has been updated to reflect the year-round monitoring consistency between Tier I and Tier II operations.

Footnote 6 reference "Tier I" twice. Both references have been corrected to "Tier II".

#### DNS03BS Outfall Description – Page 17 of 46

The outfall description has been corrected to reflect the appropriate footnotes.

# Rationale - DSN03BS

The Tier II chloroform limits row contains the notation "O-See Comments Below." This reference is not tied to a permit condition but is included intentionally to prevent parameter duplication issues within the AEPACS reporting system. The notation is for database distinction only and does not affect the applicable chloroform limitations. There will be a note at the bottom of the DMR form which signifies the reporting requirement for this parameter.

# Rationale - October 8, 2025 Revision

IP requested clarification of the "Outfall DSN03A Removal" section. This language has been updated as requested in the above section.

In addition, IP requested that refence to 40 CFR 430.34 regarding certification of non-use of pentacholorophenol and trichlorophenol be included in the TBEL section. The language has been updated as requested.

# DSN002/DSN003: Final Limitations\*

#### **Current Permit Limitations**

#### DSN0022/DSN0032

DONOULE		WWW.	
Pollutant	Daily Maximum (lbs/day)	Monthly Average (lbs/day)	Basis
BOD <sub>5</sub>	46,010	23,600	Current Permit Limitation
TSS	91,450	48,538	Current Permit Limitation
AOX	2884	1889	Current Permit Limitation
Chloroform (Hardwood)	10.667	6.383	Current Permit Limitation
Chloroform (Softwood)	10.317	6.172	Current Permit Limitation
Pentachlorophenol*	6.28	-	Current Permit Limitation
Trichlorophenol*	30.52	-	Current Permit Limitation

<sup>\*</sup>Listed limitations are the most stringent of existing permit limitations, renewal calculations, and water quality based limitations

#### Renewal Application Calculations - Tier I<sup>1</sup>

#### DSN002/DSN003 - Tier I

Pollutant	Daily Maximum (lbs/day)	Monthly Average (lbs/day)	Basis
BOD5	45,976	23,583	2025 Renewal Calculations
TSS	91,377	48,499	2025 Renewal Calculations
AOX	2369	1552	2025 Renewal Calculations
Chloroform (Hardwood)	8.833	5.285	2025 Renewal Calculations
Chloroform (Softwood)	8.406	5.029	2025 Renewal Calculations
Pentachlorophenol**	6.28	-	Existing Permit
Trichlorophenol**	30.52		Existing Permit

<sup>\*</sup>Listed limitations are the most stringent of existing permit limitations, renewal calculations, and water quality based limitations

#### Renewal Application Calculations - Tier II<sup>2</sup>

#### DSN002/DSN003 - Tier II

Pollutant	Daily Maximum (lbs/day)	Monthly Average (lbs/day)	Basis
BOD <sub>5</sub>	37,487	18,888	2025 Renewal Calculations
TSS	67,270	34,531	2025 Renewal Calculations
AOX	935	613	2025 Renewal Calculations
Chloroform (Hardwood or Softwood)	6.809	4.074	2025 Renewal Calculations
Pentachlorophenol**	2.53	-	2025 Renewal Calculations
Trichlorophenol**	10.82	-	2025 Renewal Calculations

<sup>\*</sup>Listed limitations are the most stringent of existing permit limitations, renewal calculations, and water quality based limitations

#### **Final Permit Limitations**

DSN002/DSN003 - Tier I1			
Pollutant	Daily Maximum (lbs/day)	Monthly Average (lbs/day)	Basis
BOD <sub>5</sub>	45,976	23,583	2025 Renewal Calculations
TSS	91,377	48,499	2025 Renewal Calculations
AOX	2369	1552	2025 Renewal Calculations
Chloroform (Hardwood)	8.833	5.285	2025 Renewal Calculations
Chloroform (Softwood)	8.406	5.029	2025 Renewal Calculations
Pentachlorophenol**	6.28	-	Existing Permit
Trichlorophenol**	30.52	-	<b>Existing Permit</b>

<sup>\*</sup>Listed limitations are the most stringent of existing permit limitations, renewal calculations, and water quality based limitations

#### DSN002/DSN003 - Tier II2

DOMOGE/ DOMOGO TICI II			
Pollutant	Daily Maximum (lbs/day)	Monthly Average (lbs/day)	Basis
BOD <sub>5</sub>	37,487	18,888	2025 Renewal Calculations
TSS	67,270	34,531	2025 Renewal Calculations
AOX	935	613	2025 Renewal Calculations
Chloroform (Hardwood or Softwood)	6.809	4.074	2025 Renewal Calculations
Pentachlorophenol**	2.53	-	2025 Renewal Calculations
Trichlorophenol**	10.82	-	2025 Renewal Calculations

<sup>\*</sup>Listed limitations are the most stringent of existing permit limitations, renewal calculations, and water quality based limitations

<sup>\*\*</sup>In lieu of monitoring for these parameters, the facility can submit a certification of non-use by reporting \*9 on the discharge monitoring report

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<sup>&</sup>lt;sup>1</sup>Tier I is the facility's current operating mode. Tier I will continue until the modification of No. 16 Paper Machine is complete and production occurs.

<sup>&</sup>lt;sup>2</sup> Tier II will commence upon completion of No. 16 Paper Machine modification and lasting through the expiration date of this permit.

#### 2025 Renewal Calculations (Tier I)

#### 40 CFR Part 430 - The Pulp, Paper, and Paperboard Point Source Category

Subpart B - Bleached Papergrade Kraft and Soda Subcateogry

40 CFR 430.22 - Best Practicable Technology (BPT) / Best Conventional Technology (BCT)

Bleached kraft facilities where pulp and fine papers are produced

PM15 Production 538 machine dried tons/day PM16 Production 1,165 machine dried tons/day

Off-the-machine production = 3,406,000 lbs/day

	Continuo	is Discharges	Cluste	Limitations
Pollutant*	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)
BOD <sub>5</sub>	10.6	5.5	36104	18733
TSS	22.15	11.9	75443	40531
рН	(1)	(1)	(1)	(1)

<sup>(1) -</sup> Within the range of 5.0 to 9.0 at all times

#### 40 CFR 430.24 Best Available Technology (BAT)

	Continuo	us Discharges	Cluste	r Limitations
Pollutant	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)
Pentachlorophenol	0.0014		4.77	-
Trichlorophenol	0.0088		29.97	-

#### Subpart J - Secondary Fiber Non-Deink Subcategory

40 CFR 430.102 - Best Practicable Technology (BPT\*) = Best Conventional Technology (BCT)

\*BPT = BAT Effluent Limitations

Secondary fiber non-deink facilities where paperboard from wastepaper is produced - corrugating medium finish subdivision

Secondary Fiber Nondeink 866 air-dried tons/day

Off-the-machine production = 1,732,000 lbs/day

	Continuo	is Discharges	Cluster Limitations		
Pollutant*	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)	
BOD <sub>5</sub>	5.7	2.8	9872	4850	
TSS	9.2	4.6	15934	7967	
pH	(1)	(1)	(1)	(1)	

<sup>(1) -</sup> Within the range of 6.0 to 9.0 at all times

#### 40 CFR 430.104 Best Available Technology (BAT)

	Continuo	us Discharges	Cluste	r Limitations
Pollutant	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)
Pentachlorophenol	0.00087	-	1.51	
Trichlorophenol	0.00030	-	0.52	

Pollutant	Daily	Maximum		
	Daily Maximum (lbs/day)	Monthly Average (lbs/day)		
BOD <sub>5</sub>	45976	23583		
TSS	91377	48499		
Pentachlorophenol	6.28	-		
Trichlorophenol	30.5	-		
pH	Within the range of 6.0 to 9.0 at at all times			

<sup>\*</sup>See permit rationale for further discussion

40 CFR 430.24 Best Available Technology (BAT)

430.24(a)(1) Requirements for Each Fiber Line not Using an Exclusively TCF Bleaching Process

Hardwood Bleachery (adjusted for moisture and shrinkage) Softwood Bleachery (adjusted for moisture and shrinkage) 579 air-dried metric tons/day 551 air-dried metric tons/day

Total Production\*

2,491,198 lbs/day

	Continuous Discharges		Cluster Limitations	
Pollutant	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)
AOX	0.951	0.623	2369	1552
COD	(e)	(e)	(e)	(e)

(e) [Reserved

\*The production numbers are based on the monthly average of the highest production year of the last 2 years as reported in the application

#### A - Hardwood Bleachery Internal Limitations

Hardwood Pulp Production

1,276,463 lbs/day 578,995 kg/day

Pollutant	Cluster Guideline Factor		Cluster Limitations <sup>e</sup>	
	Daily Maximum (g/1000 kg product)	Monthly Average (g/1000 kg product)	Daily Maximum	Monthly Average
TCDD	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<10 pg/L	n/a
TCDF	N/A	( <sup>b</sup> )	31.9 pg/L	n/a
Chloroform	6.92 <sup>d</sup>	4.14 <sup>d</sup>	8.833	5.285
Trichlorosyringol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
3,4,5-trichlorocatecol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
3,4,6-trichlorocatecol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
3,4,5-trichloroguaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
3,4,6-trichloroguaiacol	<ml<sup>a</ml<sup>	(b)	<2.5 ug/L	n/a
4,5,6-trichloroguiaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
2,4,5-trichlorophenol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
2,4,6-trichlorophenol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
Tetrachlorocatecol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
Tetrachloroguiaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
2,3,4,6-tetrachlorophenol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
Pentachlorophenol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a

#### B - Softwood Bleachery Internal Limitations

Softwood Pulp Production

1,214,735 lbs/day 550,995 kg/day

Pollutant	Cluster Guideline Factor		Cluster Limitations <sup>e</sup>	
	Daily Maximum	Monthly Average	Daily Maximum	Monthly Average
TCDD	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<10 pg/L <sup>c</sup>	n/a
TCDF	N/A	( <sup>b</sup> )	31.9 pg/L <sup>c</sup>	n/a
Chloroform	6.92 <sup>d</sup>	4.14 <sup>d</sup>	8.406	5.029
Trichlorosyringol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
3,4,5-trichlorocatecol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
3,4,6-trichlorocatecol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
3,4,5-trichloroguaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
3,4,6-trichloroguaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
4,5,6-trichloroguiaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
2,4,5-trichlorophenol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
2,4,6-trichlorophenol	<ml<sup>a</ml<sup>	(b)	<2.5 ug/L	n/a
Tetrachlorocatecol	<ml<sup>a</ml<sup>	(b)	<5.0 ug/L	n/a
Tetrachloroguiaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
2,3,4,6-tetrachlorophenol	<ml<sup>a</ml<sup>	(b)	<2.5 ug/L	n/a
Pentachlorophenol	<ml<sup>a</ml<sup>	(b)	<5.0 ug/L	n/a

a - "<ML means less than the minimum level specified in § 430.01(i) for the particular pollutant

b - This regulation does not specify this type of limitation for this pollutant

<sup>-</sup> Picograms per liter

d - Grams per 1,000 kilograms (g/kkg)

<sup>-</sup> Cluster limitations for Chloroform are in lbs/day

# 2025 Renewal Calculations (Tier II)

40 CFR Part 430 - The Pulp, Paper, and Paperboard Point Source Category

Subpart B - Bleached Papergrade Kraft and Soda Subcateogry

40 CFR 430.22(a) - Best Practicable Technology (BPT) / Best Conventional Technology (BCT)

Bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced

**Bleached Paper Production** 

498 machine dried tons/day

Off-the-machine production =

996,000 lbs/day

Pollutant*	Continuous Discharges		Cluster Limitations	
	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)
BOD <sub>5</sub>	13.65	7.1	13595	7072
TSS	24.0	12.9	23904	12848
рН	(1)	(1)	(1)	(1)

(1) - Within the range of 5.0 to 9.0 at all times

40 CFR 430,24(d) Best Available Technology (BAT)

Pollutant	Continuous Discharges		Cluster Limitations	
	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)
Pentachlorophenol	0.0016	-	1.59	•
Trichlorophenol	0.010	•	9.96	-

Subpart C - Unbleached Kraft Subcategory

40 CFR 430.32 - Best Practicable Technology (BPT) /Best Conventional Technology (BCT)

BPT effluent limitations for unbleached kraft facilities

Unbleached Kraft Production

811 ADT/day

Off-the-machine production =

1,622,000 lbs/day

Pollutant*	Continuous Discharges		Cluster Limitations	
	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)
BOD <sub>5</sub>	5.6	2.8	9083	4542
TSS	12.0	6.0	19464	9732
pH	(1)	(1)	(1)	(1)

(1) - Within the range of 6.0 to 9.0 at all times

40 CFR 430.34 Best Available Technology (BAT)

Pollutant	Continuous Discharges		Cluster Limitations	
	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)
Pentachlorophenol	0.00058	•	0.94	-
Tricholorphenol	0.00053	•	0.86	•

Subpart J - Secondary Fiber Non-Deink Subcategory

40 CFR 430.102 - Best Practicable Technology (BPT\*) = Best Conventional Technology (BCT)

\*BPT = BAT Effluent Limitations

Secondary fiber non-deink facilities where paperboard from wastepaper is produced - corrugating medium finish subdivision

Secondary Fiber Nondeink

1,299 air-dried tons/day

Off-the-machine production =

2,598,000 lbs/day

	Continuous Discharges		Cluster Limitations	
Pollutant*	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)
BOD₅	5.7	2.8	14809	7274
TSS	9.2	4.6	23902	11951
рН	(1)	(1)	(1)	(1)

Pollutant	Daily	Maximum
	Daily Maximum (lbs/day)	Monthly Average (lbs/day)
BOD <sub>5</sub>	37487	18888
TSS	67270	34531
Pentachlorophenol	2.53	-
Trichlorophenol	10.82	-
рН	Within the range of	6.0 to 9.0 at at all times

## 40 CFR 430.24 Best Available Technology (BAT)

430.24(a)(1) Requirements for Each Fiber Line not Using an Exclusively TCF Bleaching Process

Hardwood or Softwood Bleachery (adjusted for moisture and shrinkage)

492 air-dried metric tons/day

Total Production\* 984,000 lbs/day

	Continuo	us Discharges	Cluster Limitations		
Pollutant	Daily Maximum (lbs/1000 lbs product)	Monthly Average (lbs/1000 lbs product)	Daily Maximum (lbs/day)	Monthly Average (lbs/day)	
AOX	0.951	0.623	935	613	
COD	(e)	(e)	(e)	(e)	

#### (e) [Reserved]

\*The production numbers are based on the monthly average of the highest production year of the last 2 years as reported in the application

	Cluster Gu	ideline Factor	Cluster	Limitations <sup>e</sup>
Pollutant	Daily Maximum (g/1000 kg product)	Monthly Average (g/1000 kg product)	Daily Maximum	Monthly Average
TCDD	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<10 pg/L	n/a
TCDF	N/A	( <sup>b</sup> )	31.9 pg/L	n/a
Chloroform	6.92 <sup>d</sup>	4.14 <sup>d</sup>	6.809	4.074
Trichlorosyringol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
3,4,5-trichlorocatecol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
3,4,6-trichlorocatecol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
3,4,5-trichloroguaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
3,4,6-trichloroguaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
4,5,6-trichloroguiaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
2,4,5-trichlorophenol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
2,4,6-trichlorophenol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
Tetrachlorocatecol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
Tetrachloroguiaiacol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a
2,3,4,6-tetrachlorophenol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<2.5 ug/L	n/a
Pentachlorophenol	<ml<sup>a</ml<sup>	( <sup>b</sup> )	<5.0 ug/L	n/a

<sup>&</sup>lt;sup>a</sup> - "<ML means less than the minimum level specified in § 430.01(i) for the particular pollutant

<sup>&</sup>lt;sup>b</sup> - This regulation does not specify this type of limitation for this pollutant

<sup>&</sup>lt;sup>c</sup> - Picograms per liter

<sup>&</sup>lt;sup>d</sup> - Grams per 1,000 kilograms (g/kkg)

<sup>-</sup> Cluster limitations for Chloroform are in lbs/day

	Qd "Cd + Qd2*	Cd2 + (	d2 + Qs*Cs = Qr*Cr  Background Background Background Background					Enter Max Daily Discharge as	Enter Avg Daily Discharge as	Partition Coefficien	
m	Pollutant	Carcinogen	Type	from upstream source (C <sub>ID</sub> )	from upstream	Instream (C <sub>s</sub> ) Daily	Background Instream (C <sub>s</sub> )	reported by Applicant	reported by Applicant	(Stream Lake)	
		,-		Delly Max	Monthly Ave	Max	Monthly Ave	(C <sub>d</sub> ) Max	(C <sub>d</sub> ) Ave	LASE,	
	Antimony		Metals	0 0	0	ug/l 0	::a/l	₩ <b>0/</b> 1	0	-	
3	Arsenic*,** Berylium	YES	Metals Metals	0	0	0	0	0	0	0.574	
4	Cadmium**		Metals	0	0	0	0	0	0	0.23	
5	Chromium / Chromium III** Chromium / Chromium VI**	-	Metals Metals	0	0	6 D	0	2.7	0	0.210	
7	Copper**		Metals	0	0	0	0	2.3	0	0.38	
8	Lead** Mercury**		Metals Metals	0	0	0	0	1.1	0	0.200	
	Nickel**		Metals	0	0	0	0	0.0075 4.5	0	0.30	
	Selenium Silver		Metals	0	0	Q	0	0	0		
12	Thallium		Metals Metals	0	0	0	0	0	0	-	
14	Zinc**		Metals	0	0	0,0	0	46	0	0.33	
15 16	Cyanide Total Phenolic Compounds	-	Metals Metals	0	0	0	0	0	0	-	
17	Hardness (As CaCO3)		Metals	0	0	0	0	0	0		
18	Acrolein Acrylonitrile*	YES	VOC	0	0	0	0	0	0	- 2	
20	Aldrin	YES	VOC	0	0	0	0	0	0		
11	Benzene* Bromoform*	YES	VOC	0	0	0	0	0	0	-	
23	Carbon Tetrachloride*	YES	VOC	0	0	0	0	0	0		
24	Chlordane Clorobenzene	YES	VOC	0	0	0 B	0	0	0	-	
26	Chlorodibromo-Methane*	YES	VOC	0	0	0	0	0	0	-	
27 28	Chloroethane 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 4,4'-DDE	YES	VOC	0	0	0	0	0	0	-	
2	4.4'-DDT	YES	VOC	0	0	0	0	0	0		
3	Dichlorobromo-Methane* 1, 1-Dichloroethane	YES	VOC	0	0	0	0	0	0	- :	
5	1, 2-Dichloroethane*	YES	VOC	0	0	0	0	0	0	-	
6	Trans-1, 2-Dichloro-Ethylene  1, 1-Dichloroethylene	YES	VOC	0	0	0	0	0	0		
8	1, 2-Dichloropropane	Spr -	VOC	0	0	0	0	- 0	0	-	
9	1, 3-Dichloro-Propylene Dieldrin	YES	VOC	0	0	0	0	0	0	-	
1 2	Ethylbenzene Methyl Bromide		VOC	0	0	0	0	0	0	-	
3	Methyl Chloride	1	VOC	0	0	0	0	0	0		
4	Methylene Chloride*  1, 1, 2, 2-Tetrachloro-Ethane*	YES	VOC	0	0	0	0	0	0	- :	
16	Tetrachloro-Ethylene*	YES	VOC	0	0	0	0	0	0	-	
17 18	Toluene Toxaphene	YES	VOC	0	0	0	0	0	0		
19	Tributyitine (TBT)	YES	VOC	0	0	0	0	0	0	-	
0	1, 1, 1-Trichloroethane  1, 1, 2-Trichloroethane*	YES	VOC	0	0	0	0	0	0	-	
52	Trichlorethylene*	YES	VOC	0	0	0	0	0	0		
3	Vinyl Chloride* P-Chloro-M-Cresol	YES	VOC Acids	0	0	0	0	0	0		
55	2-Chlorophenol		Acids	0	0	0	0	0	0	-	
56	2, 4-Dichlorophenol 2, 4-Dimethylphenol	100-00	Acids Acids	0	0	0	0	0	0	-	
58	4, 6-Dinitro-O-Cresol		Acids	0	0	0	0	0	0	-	
59 50	2, 4-Dinitrophenol 4,6-Dintro-2-methylophenol	YES	Acids Acids	0	0	0	0	0	0	-	
51	Dioxin (2,3,7,8-TCDD)	YES	Acids	0	0	0	0	0	0	-	
52	2-Nitrophenol 4-Nitrophenol		Acids Acids	0	0	0	0	0	0	-	
54	Pentachlorophenol*	YES	Acids	0	0	0	0	0	0	-	
55	Phenol  2, 4, 6-Trichlorophenol*	YES	Acids Acids	0	0	0	0	0	0	-	
57 58	Acenaphthene Acenaphthylene		Bases Bases	0	0	0	0	0	0	-	
59	Anthracene		Bases	0	0	0	0	0	0		
70	Benzidine Benzo(A)Anthracene®	YES	Bases Bases	0	0	0	0	3.2	0	-	
72	Benzo(A)Pyrene*	YES	Bases	0	0	0	0	1	0	-	
73	3, 4 Benzo-Fluoranthene Benzo(GHI)Perviene		Bases Bases	0	0	0	0	1 0	0	1	
75	Benzo(K)Fluoranthene		Bases	0	0	0	0	1.5	0	-	
76	Bis (2-Chloroethoxy) Methane Bis (2-Chloroethyl)-Ether*	YES	Bases Bases	0	0	0	0	0	0	:	
	Bis (2-Chloroiso-Propyl) Ether		Bases	0	0	0	0	0	0	-	
	Bis (2-Ethylhexyl) Phthalate* 4-Bromophenyl Phenyl Ether	YES	Bases Bases	0	0	0	0	0	0		
31	Butyl Benzyl Phthalate		Bases	0	0	0	0	1.2	0	-	
33	2-Chloronaphthalene 4-Chlorophenyl Phenyl Ether		Bases Bases	0	0	0	0	0	0	:	
84	Chrysene*	YES	Bases Bases	0	0	0	0	2.3	0		
36	Di-N-Butyl Phthalate Di-N-Octyl Phthalate	7 7 1	Bases	0	0	0	0	1	0	-	
7	Dibenzo(A,H)Anthracene® 1, 2-Dichlorobenzene	YES	Bases Bases	0	0	0	0	0	8	:	
9	1, 3-Dichlorobenzene		Bases	0	0	0	0	0	0	-	
10	1, 4-Dichlorobenzene 3, 3-Dichlorobenzidine*	YES	Bases Bases	0	0	0	0	0	0	:	
12	Diethyl Phthalate		Bases	0	0	0	0	0	0	-	
13	Dimethyl Phthalate  2, 4-Dinitrotoluene*	YES	Bases Bases	0	0	0	0	0	0	:	
15	2, 6-Dinitrotoluene		Bases	0	0	0	0	0	0	-	
17	1,2-Diphenylhydrazine Endosulfan (alpha)	YES	Bases Bases	0	0	0 /	0	0	0	:	
	Endosulfan (beta)	YES	Bases	0	0	0	0	0	0	-	
19	Endosulfan sulfate Endrin	YES	Bases	0	0	0	0	0	0	-	
1	Endrin Aldeyhide Fluoranthene	YES	Bases Bases	0	0	0	0	0	0	:	
)3	Ruorene		Bases	0	0	0	0	0	0		
14	Heptochlor Heptachlor Epoxide	YES	Bases Bases	0	0	0	0	0	0	1	
15	Hexachlorobenzene*	YES	Bases	0	0	0	0	0	0	-	
7	Hexachiorobutadiene*	YES	Bases Bases	0	0	0	0 0	0	0	:	
18	Hexachlorocyclohexan (alpa) Hexachlorocyclohexan (beta)	YES	Bases	0	0	0	0	0	0	-	
0	Hexachlorocyclohexan (gamma)	YES	Bases Bases	0	0	0	0	0	0	:	
12	HexachlorocycloPentadiene Hexachloroethane	-	Bases	0	0	0	0	0	0		
13	Indeno(1, 2, 3-CK)Pyrene*	YES	Bases	0	0	0	0	0	0	1	
14	Isophorone Naphthalene		Bases Bases	0	0	0	0	0	0	1	
16	Nitrobenzene	-	Bases	0	0	0	0	0	0		
17	N-Nitrosodi-N-Propylamine* N-Nitrosodi-N-Methylamine*	YES	Bases Bases	0	0	0	0	0	0	- :	
19	N-Nitrosodi-N-Phenylamine*	YES	Bases	0	0	.0	0	0	0	-	
	PCB-1016 PCB-1221	YES	Bases Bases	0	0	0	0	0	0		
22	PCB-1232	YES	Bases	0	0	0	0.	0	0		
	PCB-1242 PCB-1248	YES	Bases	0	0	0	0	0	0	1	
25	PCB-1254	YES	Bases	0	0	0	0	0	0	-	
	PCB-1260 Phenanthrene	YES	Bases Bases	0	0	0	0	0	0	-	
	providence in core		Longs		1 "	Total Control		1			

36,3	Enter Q <sub>d</sub> = wastewater discharge flow from facility (MGD)
56.1644127	Q <sub>d</sub> = wastewater discharge flow (cfs) (this value is caluclated 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)
3,815	Enter 7Q10, Q <sub>a</sub> = background stream flow in cfs above point of discharge
2,861	Enter or estimated, 1Q10, Q <sub>3</sub> = background stream flow in cfs above point of discharge (1Q10 estimated at 75% of 7Q10)
27,310	Enter Mean Annual Flow, Q <sub>6</sub> = background stream flow in cfs above point of discharge
6,031	Enter 7Q2, Q <sub>s</sub> = background stream flow in cfs above point of discharge (For LWF class streams)
Enter to Left	Enter C <sub>s</sub> = background in-stream pollutant concentration in µg/l (assuming this is zero "0" unless there is data)
Q <sub>d</sub> +Qd2+Q <sub>0</sub>	Q, = resultant in-stream flow, after discharge
Calculated on other	C <sub>r</sub> = resultant in-stream pollutant concentration in μg/l in the stream (after complete mixing occurs)
50.00	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)

<sup>\*\*</sup> Using Partition Coefficients

October 28, 2025

Facility Name: International Paper - Riverdale

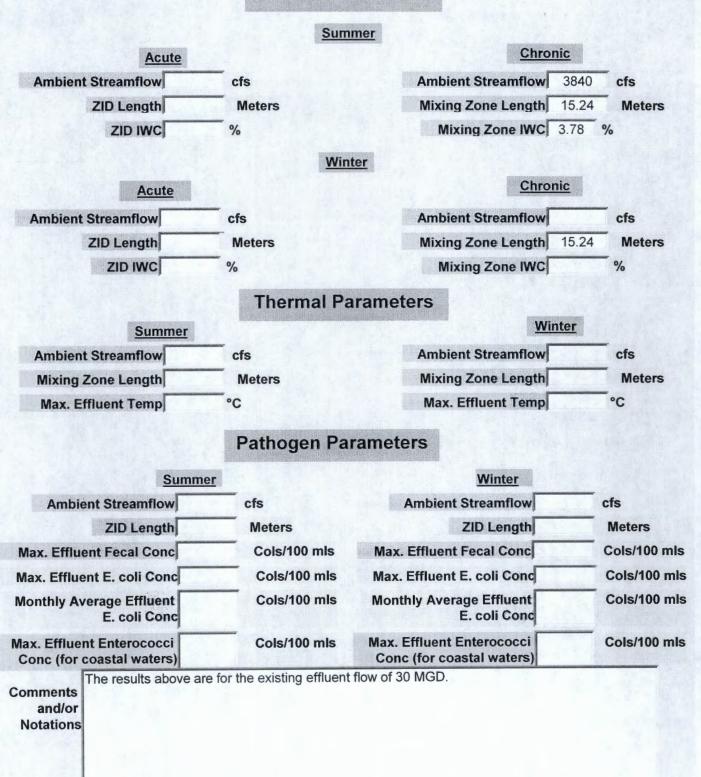
MODER	Mar	AL0003018	

shwater F&W crassification.				Max Daily	Fre	shwater Acute (	µg/l) Q, ≠1Q10			Avg Daily	Fresh	water Chronic	(194) Q, + 7Q10		Carcin	ith Consumpti logen Q <sub>s</sub> = Ann ⊳Carcinoges C	Liai Average	Q/I)
Pollutiers	RP7	Carcinogen	Background from upstream source (Cd2)	Discharge as reported by Applicant	Water	Draft Permit Limit (Come)	20% of Draft Permit Limit	RP7	Background from upstream source (Cd2)	Discharge as reported by Applicant	Water Quality	Draft Permit	20% of Druft Permit Limit	RP7	Weiter Quality Criteria (C.)	Draft Permit Limit (C <sub>she</sub> )	20% of Draft	R
Antimony			Daily Max	(C)	Criteria (C <sub>r</sub> )	print (C)	Paris I		Monthly Ave	(C <sub>d-q</sub> )	Criteria (C <sub>1</sub> )		Pena Lina				Pernit Limit	
2 Arsenic 3 Berylium		YES	0	0	592:334	30765.694	6153.139	No	0	0	261.324	18011.910	3602.382	No	3.73E+02 0.3030	2.57E+04 147.6518	5.15E+03 29.5304	1
4 Cadmium 5 Chromium/ Chromium III	-		0	0 2.7	4.347 1537.913	225.789 79878.781	45.158 15975.756	No No	0	0	0,644 200,061	44.361 13788.621	8.872 2757.724	No No		- :	-	
6 Chromium/ Chromium VI 7 Copper			0	0 2.3	16.000 18.028	831.036 936.285	166.207 187.257	No No	0	0	11.000 12.766	758,181 879,874	151.636 175.975	No No			-	
B Lead 9 Mercury			0	1.1 0.0075	146.291 2.400	7598.307 124.655	1519.661 24.931	No No	0	0	5.701 0.012	392.927 0.827	78.585 0.165	No No	4.24E-02	2.92E+00	5.85E-01	
Nickel Nickel			0	4.5	515.824	26791.778	5358.356	No	0	0	57,292	3948.895	789.779	No	9.93E+02	6.84E+04	1.37E+04	1
Selenium Silver			0	0	20.000 0.976	1038.795 50.716	207.759 10.143	No No	0	0	6.000	344.628	68.926	No	2430.56	167527.44	33505.49	1
Thallium Zinc			0	0 46	197.369	10251.283	2050.257	No	0	0	198.963	13715.037	2743.007	No	2.74E-01 1.49E+04	1.89E+01 1.03E+06	3.77E+00 2.05E+05	
Cyanide Total Phenolic Compounds			0	0	22.000	1142.674	228.535	No	0	0	5 200	358.413	71.683	No	9.33E+03	6.43E+05	1.29€+05	
Hardness (As CaCO3)			0	0			-		0	0					5.43E+00	3.74E+02	7.48E+01	1
Acrylonitrile Aldrin		YES YES	0	0	3.000	155.819	31.164	- No	0	0					1.44E-01 2.94E-05	7.02E+01 1.43E-02	1.40E+01 2.86E-03	1
Benzene Bromoform		YES YES	0	0		*		-	0	0				-	1.56E+01 7.88E+01	7.54E+03 3.84E+04	1.51E+03 7.68E+03	i
Carbon Tetrachloride		YES	0	0			-	-	0	0			-		9.57E-01	4.66E+02	9.33E+01	10
Chlordane Clorobenzene		YES	0	0	2.400	124.656	24.931	No -	0	0	0.0043	0.296	0.059	No -	4.73E-04 9.06E+02	2.30E-01 6.25E+04	4.81E-02 1.25E+04	
Chlorodibromo-Methane Chloroethane		YES	0	0			-	-	0	0	-		-	-	7.41E+00	3.61E+03	7.22E+02	1
2-Chloro-Ethylvinyl Ether ChloroForm		YES	0	0	-	-	1	-	0	0	-				1.02E+02	4.97E+04	9.94E+03	1
4,4' - DDD 4,4' - DDE		YES	0	0				-:	0	0	-	-:-	-		1.81E-04 1.26E-04	6.84E-02 6.24E-02	1.77E-02 1.25E-02	1
4,4' - DDT		YES YES	0	0	1.100	57.134	11.427	No	0	0	0.001	0.069	0.014	No	1,25E-04	6.24E-02	1.25E-02	113
Dichlorobromo-Methane 1, 1-Dichloroethane			0	0		- :		-	0	0		-			1.006+01	4.69E+03	9.78E+02	1
1, 2-Dichloroethane Trans-1, 2-Dichloro-Ethylene		YES	0	0	-		- :	:	0	0		-	:		2.14E+01 5.91E+03	1.04E+04 4.07E+05	2.08E+03 8.14E+04	
1, 1-Dichloroethylene 1, 2-Dichloropropane		YES	0	0		-		-	0	0	-	-	-		4.17E+03 6.49E+00	2.03E+06 5.85E+02	4.06E+05 1.17E+02	
1, 3-Dichloro-Propylene Dieldrin		YES	0	0	0.240	12.466	2.493	- No	0	0	0.058	3.860	0.772	- No	1.23E+01 3.12E-05	8.46E+02 1.52E-02	1.69E+02 3.04E-03	
Ethylbenzene		723	0	0	-	.230	2.403		0	0	-		0.172		1.24E+03	8.58E+04	1.72E+04	
Methyl Bromide Methyl Chloride		-	0	0			-	-	0	0			- :	-:-	8.71E+02	6.00E+04	1.20E+04	
Methylene Chloride 1, 1, 2, 2-Tetrachloro-Ethane		YES	0	0	-		-		0	0			-		3.46E+02 2.33E+90	1.68E+05 1.14E+03	3.37E+04 2.27E+02	
Tetrachloro-Ethylene Toluene		YES	0	0	-		-:	-	0	0	- :				1.92E+00 8.72E+03	9.34E+02 6.01E+05	1.87E+02 1.20E+05	
Toxaphene Tributyltin (TBT)		YES YES	0	0	0.730	37.916 23.892	7.583 4.778	No No	0	0	0.0002	0.014	0.003	No No	1.62E-04	7.89E-02	1.58E-02	
1, 1, 1-Trichloroethane		180	0	0	0.400	23.002	4.770		0	0	0.072	4.303	0.883	NO .				
1, 1, 2-Trichloroethane Trichlorethylene		YES YES	0	0				-	0	0					9.10E+00 1.75E+01	4.43E+03 8.51E+03	8.86E+02 1.70E+03	t
Vinyl Chloride P-Chloro-M-Cresol		YES	0	0	-	-		-	0	0	-	-:-	-	-	1.42E+00	6.94E+02	1.39E+02	
2-Chlorophenol 2, 4-Dichlorophenol			0	0				-	0	0	:	- :			8.71E+01 1.72E+02	6.00E+03 1.19E+04	1.20E+03 2.37E+03	
2, 4-Dimethylphenol 4, 6-Dinitro-O-Cresol			0	0	- 1		-	-	0	0					4.98E+02	3.43E+04	6.86E+03	i
2, 4-Dinitrophenol			0	0	-	-	-	- 1	0	0		·	-		3.11E+03	2.14E+05	4.29E+04	1
4,6-Dinitro-2-methylphenol Dioxin (2,3,7,8-TCDD)		YES	0	0	-			-	0	0		-		-	1.65E+02 2.67E-08	8.06E+04 1.30E-05	1.61E+04 2.60E-06	1
2-Nitrophenol 4-Nitrophenol			0	0	-	-	- :-	- :	0	0		- :		-			-	
Pentachlorophenot Phenot		YES	0	0	8.723	453.087	90.617	No	0	0	6,693	461.290	92.258	No	1,77E+00 5.00E+06	8.61E+02 3.45E+07	1.72E+02 6.89E+06	1
2, 4, 6-Trichlorophenol		YES	0	0			-	-	0	0					1.41E+00 5.79E+02	6.89E+02	1.38E+02	
Acenaphthylene Acenaphthylene			0	0		-		-	0	0				F	-	3.99E+04	7.97E+03	
Anthracene Benzidine			0	0		-	-	-	0	0	-				2.33E+04 1.16E-04	1.61E+06 7.99E-03	3.22E+05 1.60E-03	1
Benzo(A)Anthracene Benzo(A)Pyrene		YES YES	0	3.2	-	-	- :	-	0	0	-	•			1.07E-02 1.07E-02	5.19E+00 5.19E+00	1.04E+00 1.04E+00	1
Benzo(b)fluoranthene Benzo(GHI)Perylene			0	1 0	-		:	-	0	0		-		-	1.07E-02	7.34E-01	1.47E-01	1
Benzo(K)Fluoranthene			0	1.5		-		-	0	0	- :				1.07E-02	7.34E-01	1.47E-01	-
Bis (2-Chloroethoxy) Methane Bis (2-Chloroethyl)-Ether		YES	0	0	1			-	0	0				-	3.07E-01	1.50E+02	3.00E+01	1
Bis (2-Chloroiso-Propyl) Ether Bis (2-Ethylhexyl) Phthalate	-	YES	0	0		- :			0	0	-		- :	-	3.78E+04 1.28E+00	2.60E+06 6.25E+02	5.21E+05 1.25E+02	1
4-Bromophenyl Phenyl Ether Butyl Benzyl Phthalate			0	1.2	-	-	-	-	0	0	-	-			1.13E+03	7.77E+04	1.55E+04	1
2-Chloronaphthalene 4-Chlorophenyl Phenyl Ether		-	0	0			-	-	0 0	0	-		-	-	9.24E+02	6.37E+04	1.27E+04	1
Chrysene		YES	0	2.3	-				0	0	-				1.07E-02 2.62E+03	5.19E+00 1.81E+05	1.04E+00 3.61E+04	P
Di-N-Butyl Phthalate Di-N-Octyl Phthalate		Mare	0	1				-	0	0		-	-		•			
Dibenzo(A,H)Anthracene 1, 2-Dichlorobenzene 1, 3-Dichlorobenzene		YES	0	0	:	-	-	-	0	0		-		-	1.07E-02 7.55E+02	5.19E+00 5.21E+04	1.04E+00 1.04E+04	
1, 3-Dichlorobenzene 1, 4-Dichlorobenzene			0	0	-		-	-	0	0	-	-		:	5.82E+02 1.12E+02	3.88E+04 7.75E+03	7.75E+03 1.55E+03	
3, 3-Dichlorobenzidine Diethyl Phthalate		YES	0	0	-:-		•	-	0	0	:		-	-	1.66E-02 2.56E+04	8.10E+00 1.76E+06	1.62E+00 3.52E+05	
Dimethyl Phthalate 2, 4-Dinitrotoluene		YES	0	0	-			-	0	0	:	-			6.45E+05 1.96E+00	4.47E+07 9.65E+02	8.93E+06 1.93E+02	
2, 6-Dinitrotoluene		165	0	0					0	0					-	-	-	
1,2-Diphenylhydrazine Endosulfan (alpha)		YES	0	0	0.22	11.427	2.285	No	0	0	0.056	3.860	0.772	No	1.17E-01 5.19E+01	8.07E+00 2.53E+04	1.61E+00 5.05E+03	
Endosulfan (beta) Endosulfan sulfate	-	YES YES	0	0	0.22	11.427	2.285	No -	0	0	0.056	3.860	0.772	No	5.19E+01 5.19E+01	2.53E+04 2.53E+04	5.05E+03 5.05E+03	
Endrin		YES	0	0	0.096	4.467	0.893	No	0	0	0.036	2.481	0.496	No	3.53E-02 1.76E-01	1.72E+01 8.59E+01	3.44E+00 1.72E+01	
Endrin Aldeyhde Fluoranthene		TES	0	0					0	0		-			8.12E+01 3.11E+03	5.59E+03 2.14E+05	1.12E+03 4.29E+04	
Fluorene Heptochlor		YES	0	0	0.52	27.009	5.402	No	0	0	0.0038	0.262	0.052	No	4,63E-05	2.26E-02	4.51E-03	
Heptachlor Epoxide Hexachlorobenzene		YES YES	0	0	0.52	27.009	5.402	No	0	0	0.0038	0.262	0.052	No	2.29E-05 1.68E-04	1.12E-02 8.18E-02	2.23E-03 1.64E-02	
Hexachlorobutadiene Hexachlorocyclohexan (alpha)		YES	0	0	1	:	- :	-	0	0			-	:	1,08E+01 2,85E-03	5.24E+03 1.39E+00	1.05E+03 2.78E-01	
Hexachlorocyclohexan (beta)		YES	0	0	0.96	49.343	9.869	No	0	0	:	- 1	:	-	9.97E-03 1.06E+00	4.86E+00 5.25E+02	9.72E-01 1.05E+02	
Hexachlorocyclohexan (gamma) HexachlorocycloPentadiene		YES	0	0	0.90	49.343	9.009	-	0	0		-	-		6,45E+02	4.45E+04	8.89E+03	
Hexachloroethane Indeno(1, 2, 3-CK)Pyrene	-	YES	0	0	:	-		-	0	0		-	-	-	1.92E+00 1.07E-02	1.32E+02 5.19E+00	2.64E+01 1.04E+00	
Isophorone Naphthalene			0	0	:	-	-	-	0	0				-	5.61E+02	3.87E+04	7.73E+03	
Nitrobenzene	-	148-	0	0		-	-	-	0	0				-	4.04E+02 2.95E-01	2.78E+04 1.44E+02	5.56E+03 2.87E+01	
N-Nitrosodi-N-Propylamine N-Nitrosodimethylamine		YES	0	0		- :	-	-	0	0	-				1,78E+00	8.57E+02	1.71E+02	
N-Nitrosodiphenylamine PCB-1016	-	YES YES	0	0	:			-	0	0	0.014	0.965	0.193	No	3.50E+00 3.74E-05	1.71E+03 1.82E-02	3.41E+02 3.64E-03	
PCB-1221 PCB-1232		YES	0	0	1		:	-:	0	0	0.014	0.965 0.965	0.193 0.193	No No	3.74E-05 3.74E-05	1.82E-02 1.82E-02	3.64E-03 3.64E-03	
PCB-1242		YES	0	0		-		-	0	0	0.014	0.965	0.193 0.193	No No	3.74E-05 3.74E-05	1.82E-02 1.82E-02	3.64E-03 3.64E-03	
PCB-1248 PCB-1254		YES	0	0					0	0	0.014	0.965	0.193	No	3.74E-05 3.74E-05	1.82E-02 1.82E-02	3.64E-03 3.64E-03	
PCB-1260 Phenanthrene		YES	0	0				-:	0	0	0.014	0.965	0.193	No -				
Pyrene			0	0				-	0	0	:		-		2.53E+03 4.09E+01	1.61E+05 2.82E+03	3.22E+04 5.64E+02	

Comments included		General		Request 34	195 Page
✓ Yes □ No		Information	KDP Date of		se 10/29/2018
Year File Was Started		Verified By			TELEMENT !
Name of Receiving Stream	Ala	bama River(D	Dannelly Lake)		
Previous stream name:	·			or-AKA (If app	olicable)
Facility Name	Inte	ernational Pap	er - Riverdale		
Previous Name of Discharger			C	Or-AKA (If app	olicable)
			Other Poi	nt Sources?	☐ Yes ☑ No
12 Digit HUC Code	03150201	1204	Sou	rces included	d in the Model:
River Basin	Alab	ama			
County	Dal	las			
Use Classification	F&	W		Permit In	formation
Discharge Latitude	32.41600	0		Type of Dis	scharger
Discharge Longitude	-86.85269	9		Municipa	
Site Visit Completed?	Yes	✓ No		Industria  Semipub	olic/Private
Date of Site Visit	200mpiglasharingnasan			L	
				ermit Numbe	AL0003018
			P	Permit Status	Active
Hydrolog	16984		Method Used	to Calculate	
Drainage Area		sq mi	USGS E		
Stream 7Q10	3840	cfs	75%of		
Stream 1Q10	2880	cfs	USGS Es		
Stream 7Q2 Annual Average	6070 26170	cfs cfs	USGS Es		
Date of MZ Analysis		and the same of th	Model Completed by		CH2M
	na Sadah - Sala			1	
Discharge Design Flow	30	MGD		Seasonal?	☐ Yes ☑ No
Po	ollutant Ca	tegory			only the summer vill be used

# Mixing Zone Analysis Summary - Page 2

# **WET Parameters**



# Jackson, Scott A

# **Subject:**

RE: [External] :RE: IP Riverdale NPDES Addendum

From: Carla C Pearson < Carla.Pearson@ipaper.com>

Sent: Monday, November 3, 2025 12:43 PM

**To:** Jackson, Scott A <scott.jackson@adem.alabama.gov>; Kim, Victoria P <victoria.kim@adem.alabama.gov> **Cc:** Cliff S Whitam <Cliff.Whitam@ipaper.com>; Manuel Sibaja <manuel.sibaja@ipaper.com>; Kelly M. Simmons

<Kelly.Simmons@ipaper.com>; Lizzie Smith <lsmith@all4inc.com>

Subject: RE: [External] :RE: IP Riverdale NPDES Addendum

Good afternoon, Scott -

Please find attached our letter of minor comments.

Let us know if you have any questions.

Thanks much – Carla



RIVERDALE MILL 601 COUNTY ROAD 78 SELMA, AL 36703-8311 PHONE 334-872-3481

November 3, 2025

Mr. Scott Jackson, Chief, Industrial Section Alabama Department of Environmental Management Water Division 1400 Coliseum Boulevard PO Box 301463 Montgomery, Alabama 36130-1463

RE: Draft National Pollutant Discharge Elimination System (NPDES) Permit

International Paper – Riverdale Mill NPDES Permit No. AL0003018

Dear Mr. Jackson,

International Paper (IP) owns and operates a Kraft pulp and paper mill in Selma, AL along the Alabama River (Riverdale Mill or Mill). The Mill received the draft NPDES Permit No. AL0003018 on October 29, 2025, and appreciates the opportunity to provide comments to the Alabama Department of Environmental Management (ADEM). IP has reviewed the draft Permit and is providing the following comments.

# Mill Manager

Micah Evans is the current Riverdale Mill Manager who signed the addendum application that was submitted on September 30, 2025. Please address the permit to Micah Evans, Mill Manager.

#### DSN0022, DSN0032 - Page 6 of 46

IP has the following minor comments on the Tier II outfalls:

- The Tier I outfalls require Nitrogen, Ammonia Total monitoring year-round, however the Tier II
  outfalls require Nitrogen, Ammonia Total only April October. IP expects that this requirement
  would be consistent between Tier I and Tier II operations.
- Footnote 6 references Tier I twice in the first sentence; both references to Tier I should be replaced with Tier II.

## DSN03BS Outfall Description - Page 17 of 46

IP requests to update the outfall description to the following (additional/edited text in red font) to reference the appropriate footnotes:

Plant #2 (Softwood) Bleach Plant 3/4/6 Plant #2 Bleach Plant (Tier II) 3/4/7

# Rationale - DSN03BS (PDF page 59)

In the table of limits for DSN03BS, the row for Tier II chloroform limits contains a reference to "O – See Comments Below." Please clarify what this is referencing; there does not appear to be a comment "O" following this table.

# Rationale - October 8, 2025 Revision (PDF page 67)

IP requests the following update in the "Outfall DSN03A Removal" section to clarify that Bleach Plant No. 1 will still be in operation when the permit is issued and that discharge from Outfall DSN03A is still authorized under Tier I operation:

Outfall DSN03A, which under Tier I operations discharges effluent from previously discharged effluent from Bleach Plant No. 1 (BP01) upstream of the alkaline sewer, will no longer be necessary since BP01 is scheduled to be permanently shut down as part of the planned process modifications. Accordingly, Outfall DSN03A DMRs should report "No Discharge" for Tier II operation.

Additionally, In the Technology-Based Effluent Limitations (TBELs) section, please include reference to 40 CFR §430.34 regarding certification of non-use of pentachlorophenol and trichlorophenol.

IP appreciates your consideration of these comments and clarifications. Should you have additional questions or want to further discuss these comments, please contact me at (334) 418-5236 or Carla.Pearson@ipaper.com.

Sincerely,

Carla Pearson

Environmental Specialist

cc: Kelly Simmons - International Paper

Lizzie Smith-ALL4 LLC

# Kim, Victoria P

Subject:

FW: Draft NPDES Permit Comments

Attachments:

Signed IP Riverdale NPDES Draft Permit Comment Letter 06-19-2025v2.pdf

From: Carla C Pearson < Carla. Pearson@ipaper.com>

Sent: Thursday, June 19, 2025 3:27 PM

To: Jackson, Scott A <scott.jackson@adem.alabama.gov>

Cc: Kim, Victoria P <victoria.kim@adem.alabama.gov>; Hugh Gatwood <hugh.gatwood@ipaper.com>; Susie Bowden

<sbowden@all4inc.com>

Subject: Draft NPDES Permit Comments

Good afternoon Scott -

Please find attached our comments pertaining to the draft NPDES permit. The hard copy letter will go out via FEDEX tomorrow.

Please let me know if you have questions or additional comments.

Thanks much -Carla C. Pearson Riverdale Mill 601 County Road 78 Selma, AL 36703 334-418-5236





RIVERDALE MILL 601 COUNTY ROAD 78 SELMA, AL 36703-8311 PHONE 334-872-3481

June 19, 2025

Mr. Scott Jackson, Chief, Industrial Section Alabama Department of Environmental Management Water Division 1400 Coliseum Boulevard PO Box 301463 Montgomery, Alabama 36130-1463

RE: Draft National Pollutant Discharge Elimination System (NPDES) Permit

International Paper – Riverdale Mill NPDES Permit No. AL0003018

Dear Mr. Jackson,

International Paper (IP) owns and operates a Kraft pulp and paper mill in Selma, AL along the Alabama River (Mill). The Mill received the draft NPDES Permit No. AL0003018 on May 20, 2025, and appreciates the opportunity to provide comments to the Alabama Department of Environmental Management (ADEM). IP has reviewed the draft Permit and is providing the following comments.

#### Nitrogen, Ammonia Total (As N)

On page 1 of 40, the seasonal requirement of monitoring was updated from April through October to all months of the year. IP noted the statement in the accompanying Fact Sheet that states "the year-round monitoring for Ammonia is consistent with similar discharges from other permitted facilities." IP is requesting additional clarification on 1) whether this year-round monitoring requirement is being applied to all pulp and paper mills in Alabama, and 2) the purpose of the additional data points in the non-growing season.

#### Pentachiorophenoi and Trichlorophenol

On pages 1 and 2 of 40, a permit limit of zero was provided for these chlorophenolic compounds. The Mill understands that no monitoring is required if certification of non-use of chlorophenolic compounds is continued. However, the Mill does propose to add the limits back into the Permit for technical completeness. If IP were to decide to use a chlorophenolic-containing substance, the Mill would need to be aware of what limit applies.

IP proposes the following limits:

- Pentachlorophenol 1.51 lbs/day maximum daily
- Trichlorophenol 0.52 lbs/day maximum daily

The proposed limits are based on effluent limitations listed in Part 430, Subpart J and the maximum daily production of the OCC Plant of 866 air-dried tons per day (ADT/day).

## # of Events

On page 2 of 40, the Mill is required to report the # of Events (i.e., number of times) the BOD5 exceeds the maximum level calculated in accordance with the equation detailed in Part IV.F of the draft Permit pursuant to Footnote 6. Part IV.F of the draft Permit details the Receiving Stream Water Quality Monitoring Requirements (i.e., river monitoring requirements during the months of June through October). However, the # of Events seasonal monitoring requirement states all months. IP feels this is a typographical error and should be listed as "Jun, Jul, Aug, Sep, Oct", which is consistent with Part IV.F as well as the Certification — River Monitoring requirement listed directly below the # of Events on page 2 of 40.

### Oil & Grease

On page 6 of 40, the Mill has a new requirement to monitor Oil & Grease from the stormwater outfalls (DSN004Q, DSN005Q, and DSN006Q) as part of its quarterly stormwater sampling with a maximum daily limit of 15 milligrams per liter (mg/l). The Mill has not historically been required to monitor this parameter on a quarterly basis. Monitoring of this parameter is completed as part of the Permit renewal during each renewal cycle. As submitted in October 2023 renewal application, Oil & Grease for these stormwater outfalls was non-detect. The Mill would not be able to complete this test in-house; therefore, incurring additional expense on a quarterly basis to meet the requirement. IP proposes to remove this requirement from the renewed permit based on its non-detect data and additional added expense.

If ADEM feels the Oil & Grease requirement is warranted, please clarify the basis of 15 mg/l limit. Based on experience and information for other states, 15 mg/l is on the lower end of a limit.

# **Chloroform Limits**

On pages 8 of 40 and 11 of 40, for outfalls DSN03A and DSN03B, respectively, the chloroform limits are not consistent with values provided in the October 2023 renewal application. After further review of the chloroform limits listed in the accompanying Fact Sheet, IP feels the limits have been inadvertently swapped for the outfalls. The values listed for DSN03A (5.029 pounds per day (lbs/day) – monthly average and 8.406 lbs/day – maximum daily) on page 8 of 40 should be the values listed on page 11 of 40 for DSN03B, which is consistent with the data presented in the renewal application as well as the Fact Sheet. Similarly, the values for DSN03B (5.285 lbs/day – monthly average and 8.833 lbs/day – maximum daily) on page 11 of 40 should be the values listed on page 8 of 40 for DSN03A, which is consistent with the Fact Sheet and renewal application.

# **Receiving Stream Water Quality Monitoring Requirements**

On page 39 of 40, Part IV.F. details the receiving stream water quality monitoring requirements for the Mill. IP would like to add a footnote regarding the determination of Q in the Maximum BOD5 Discharged (lbs/day) equation. The Mill proposes to add the following: Determination of river flows may be based on the discharge schedule at Jones Bluff Lock & Dam.

IP appreciates your consideration of these comments and clarifications. Should you have additional questions or want to further discuss these comments, please contact me at (334) 418-5236 or Carla.Pearson@ipaper.com.

Sincerely,

arla Pearson

**Environmental Specialist** 

cc: Hugh Gatwood – International Paper

Susie Bowden - ALL4 LLC

# Jackson, Scott A

Subject:

RE: IP Riverdale NPDES Addendum

From: Lizzie Smith <lsmith@all4inc.com>
Sent: Tuesday, September 30, 2025 12:25 PM

**To:** Jackson, Scott A <scott.jackson@adem.alabama.gov>; Kim, Victoria P <victoria.kim@adem.alabama.gov> **Cc:** Cliff S Whitam <cliff.whitam@ipaper.com>; Manuel Sibaja <manuel.sibaja@ipaper.com>; Carla C Pearson

<carla.pearson@ipaper.com>

Subject: IP Riverdale NPDES Addendum

Scott and Victoria,

Thank you again for your time a couple of weeks ago to discuss the upcoming changes at the IP Riverdale Mill impacting the NPDES renewal. The addendum to the 2023 renewal application is attached, as discussed. We'd like to setup a call to discuss the addendum and path forward for getting the NPDES permit finalized including the Mill's prior comments; please let us know your availability for a call next week, but please reach out sooner with any questions. We look forward to working with you on this!

The Mill will also submit a hard copy of the addendum.

Thanks, Lizzie



**Lizzie Smith** / Managing Consultant / Water Tech Team Lead 770.999.0269 / <u>Profile</u> / <u>LinkedIn</u>

www.all4inc.com / Locations / Articles / Podcast / Training

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RIVERDALE MILL 601 COUNTY ROAD 78 SELMA, AL 36703-8311 PHONE 334-872-3481

September 30, 2025

Alabama Department of Environmental Management Post Office Box 301463 Montgomery, AL 36130-1463 ATTN: Scott Jackson, Water Division

RE: International Paper – Riverdale Mill

National Pollutant Discharge Elimination System Permit No. AL0003018

Second Addendum to Renewal Application

Dear Mr. Jackson:

International Paper (IP) owns and operates a Kraft pulp and paper mill (Mill) in Selma, AL along the Alabama River. The Mill currently operates pursuant to National Pollutant Discharge Elimination System (NPDES) Permit No. AL0003018 issued by Alabama Department of Environmental Management (ADEM), which expired on March 31, 2024. The renewal application was submitted 180 days prior to the expiration date on October 3, 2023, and the first addendum to the renewal application was submitted in November 2023 to provide sampling data that was not available at the time the renewal application was submitted.

The Mill is planning modifications to the No. 16 Paper Machine (PM16) that will alter the grades of paper produced on PM16 during the annual outage in 2026 (Project). The annual outage timing has not been decided, but it could be as early as March 2026. The Project includes modifications to the dryer section of PM16 in order to make different grades of unbleached brown linerboard, as well as piping changes in order to utilize Old Corrugated Container (OCC) recycle pulp on PM16. Once the PM16 modifications are complete, PM16 will no longer produce the uncoated freesheet product. The Project also includes modifications to the No. 1 Brownstock Washer System (BW01), which currently only processes hardwood fiber. After completion of the proposed project, BW01 will have the capability to process either hardwood or softwood fiber, depending on the needs of the paper machines. Upon final completion of the PM16 modifications, the No. 1 Bleaching System (BP01) will be shut down. As a result of the project, the No. 2 Bleaching System (BP02) will be required to produce the bleached softwood and hardwood pulp. There will be no overall increase in virgin pulp production or total chips processed as a result of the Project. The Mill does not expect an increase in discharge flow due to the Project, and there may be a decrease in discharge flow. The Mill submitted a business confidential Prevention of Significant Deterioration (PSD) air permit application for the Project in November 2021 and is submitting this addendum to the NPDES application to incorporate the Project into the Mill's NPDES permit, following its public announcement on August 21, 2025. Since the public announcement, IP has begun evaluating an accelerated timeframe, targeting completion as early as April 2026.

# PROPOSED PERMIT REVISIONS

The following sections discuss the impact of the Project on the NPDES Permit.

#### REMOVAL OF OUTFALL

Outfall DSN03A is an internal outfall that discharges effluent from BP01 upstream of the alkaline sewer. The Mill is requesting the removal of the internal outfall, DSN03A, throughout the NPDES Permit since BP01 will be shut down.

#### **UPDATE IN OUTFALL DESCRIPTION**

BP02 currently only processes softwood fiber. Internal Outfall DSN03B discharges effluent from BP02 upstream of the alkaline sewer. The description of Outfall DSN03B in the Permit is currently "Plant #2 (Softwood) Bleach Plant" The Mill requests to remove "(Softwood)" from the outfall description since BP02 will process both hardwood and softwood following the Project.

#### POST-PROJECT PRODUCTION AND LIMITS UPDATES

The process wastewaters generated at the Mill are currently regulated under the Effluent Limitations Guidelines (ELGs) and Standards for the Pulp, Paper, and Paperboard Point Source Category at 40 CFR Part 430, Subpart B – Bleached Papergrade Kraft and Soda Subcategory (Subpart B) and Subpart J – Secondary Fiber Non-Deink Subcategory (Subpart J), but will now also have production under Subpart C – Unbleached Kraft Subcategory (Subpart C). Despite adding Subpart C, none of the ELGs pollutants changed as they were already regulated by Subparts B and J. The significant pollutants regulated by the pulp and paper effluent guidelines include 5-day biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), adsorbable organic halogens (AOX), chloroform, pentachlorophenol, and trichlorophenol (TCP). While the Mill does not anticipate an increase in pollutant discharge as a result of the project, the Mill's Technology-Based Effluent Limitations (TBELs) will decrease as a result of the production changes at the Mill. The projected TBELs that would take effect upon completion of the Project are provided in Table 1 below with detailed calculations provided in Attachment B. The production rates used for these calculations are also provided in Form 2C, Attachment A.

Table 1
Technology-Based Discharge Limitations

Parameter	Monthly Average (lbs/day)	Daily Maximum (lbs/day)
BOD₅	18,894	37,500
TSS	34,543	67,292
AOX	613	935
Chloroform (Outfall DSN003B)	4.07	6.81
Pentachlorophenol	Not Applicable (N/A)	1.59
Trichlorophenol	N/A	1.00

Updates to the Form 2C submitted with the 2023 NPDES renewal application to reflect the Project are provided in Attachment A. Information on Form 2C that is not impacted by the Project remains the same as the 2023 NPDES renewal application. Information from the other forms provided with the 2023 NPDES

renewal application is not impacted by the Project. IP appreciates ADEM's cooperation to incorporate this business-critical Project into the Mill's NPDES permit as expeditiously as possible in order to support the accelerated Project schedule.

Based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

If you have any questions or require additional information, please contact me by email at Micah.Evans@ipaper.com.

Sincerely,

Micah Evans Mill Manager

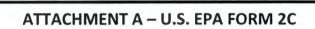
Mich Ero

cc:

Lizzie Smith - ALL4 LLC

Attachments: Attachment A - U.S. EPA Form 2C

Attachment B - TBEL Calculations



EPA Identification Number NPDES Permit Number Facility Name OMB No. 2040-0004

ALD000645457 AL0003018 International Paper - Riverdale

Form 2C NPDES	9	EPA	Application	. Environmental Protection Ager for NPDES Permit to Discharge \ , COMMERCIAL, MINING, AND S	Wastewater
SECTIO	6 5 1		TION (40 CFR 122.21(G)(1))		
	1.1		ormation on each of the facility's outfa	lls in the table below.	
Outfall Location		Outfall Number	Receiving Water Name	Latitude	Longitude
II Loc		DSN002	Alabama River	32° 24' 50" N	86° 50' 50" W
Outfa		DSN003	Alabama River	32° 24' 50" N	86° 50' 50" W
SECTIO	N 2. LIN	E DRAWING	(40 CFR 122.21(G)(2))		
Line Drawing	2.1		ttached a line drawing to this applicat See instructions for drawing requirement		
	N 3. AVI		NS AND TREATMENT (40 CFR 122.	21(G)(3))	
	3.1		utfall identified under Item 1.1, provide	e average flow and treatment inform	mation. Add additional sheets if
	low.			all Number**	
/			Operation Operat	ions Contributing to Flow	verage Flow
			See Attachment	^	
ŧ			See Attachment		mgd
ıtme					mgd
d Trea					mgd
vs an					mgd
Flov				Treatment Units	
Average Flows and Treatment		(include	Description size, flow rate through each treatmer retention time, etc.)	t unit, Code from Exhibit 2C-2	Final Disposal of Solid or Liquid Wastes Other Than by Discharge
			See Attachment		COLVER OF

**EPA Identification Number** NPDES Permit Number Facility Name OMB No. 2040-0004 Expires 07/31/2026 ALD000645457 AL0003018 International Paper - Riverdale 3.1 \*\*Outfall Number\*\* cont. **Operations Contributing to Flow** Operation **Average Flow** mgd mgd mgd mgd **Treatment Units** Description Final Disposal of Solid or Code from **Liquid Wastes Other Than** (include size, flow rate through each treatment unit, Exhibit 2C-2 retention time, etc.) by Discharge Average Flows and Treatment Continued \*\*Outfall Number\*\* **Operations Contributing to Flow** Operation Average Flow mgd mgd mgd mgd **Treatment Units** Final Disposal of Solid or Description Code from **Liquid Wastes Other Than** (include size, flow rate through each treatment unit, Exhibit 2C-2

	-	
3.2	Are you applying for an NPDES permit to	operate a privately owned treatment works?
	☐ Yes	✓ No → SKIP to Section 4.
3.3	Have you attached a list that identifies each	th user of the treatment works?
	Yes	

retention time, etc.)

by Discharge

	Identificati ALD0006	on Number 45457	NPDES Pem AL0003	-	Facility Name ernational Paper - R	iverdale		No. 2040-000 es 07/31/202					
ECTIO	ON 4. INT	ERMITTENT F	LOWS (40 CFR 12	2.21(G)(4))	中型黄色素 第三	348647	(4) 新田丁。	1. 3.9.					
	4.1	The second second	Except for storm runoff, leaks, or spills, are any discharges described in Sections 1 and 3 intermittent or seasonal										
	4.2	Provide infornecessary.	litional pages, if										
		Outfall Number	Operation (list)	Average Days/Week	uency Average Months/Year	Long-Term Average	Rate Maximum Daily	Duration					
			9	days/week	months/year	mgd	mgd	day					
Intermittent Flows				days/week	months/year	mgd	mgd	day					
ittent				days/week	months/year	mgd	mgd	day					
Interm				days/week	months/year	mgd	mgd	day					
				days/week	months/year	mgd	mgd	day					
				days/week	months/year	mgd	mgd	day					
				days/week	months/year	mgd	mgd	day					
			***************************************	days/week	months/year	mgd	mgd	day					
				days/week	months/year	mgd	mgd	day					
ECTIO	5.1	The same of the sa	O CFR 122.21(G)(5) ent limitation guideli	nes (ELGs) promulga	ted by EPA under Se	ection 304 of the	CWA apply to y	/our					
		✓ Yes			□ No → S	SKIP to Section 6	5.						
Gs	5.2			on applicable ELGs.									
Applicable ELGs			CFR 430		ELG Subcategory sched Papergrade Kra	aft and Soda	Regulatory 40 CFR 4						
Appl		40	CFR 430	Subpart C: U	Inbleached Kraft Sub	category	40 CFR 4	430.30					

Subpart J: Secondary Fiber Non-Deink Subcategory

No → SKIP to Section 6.

**Quantity per Day** 

Are any of the applicable ELGs expressed in terms of production (or other measure of operation)?

Provide an actual measure of daily production expressed in terms and units of applicable ELGs.

Operation, Product, or Material

See Attachment

Unit of

Measure

40 CFR 430.100

5.3

5.4

Outfall

Number

Production-Based Limitations

40 CFR 430

		on Number	NPDES Permit Number		Facility Name		MB No. 2040-00
A	ALD0006	45457	AL0003018	Internation	nal Paper - Riverdale		Expires 07/31/20
	5.5	Are you requiterm? (Consumber.)	esting alternative limits based ult with your NPDES permittin	d on an anticipated g g authority to deter	increase in the actual promine what information n	oduction during to eeds to be submi	he next perm itted and
		☐ Yes			No		
ECTIO	N 6. IMP	ROVEMENTS	(40 CFR 122.21(G)(6))		A Service of the service of		
	<u>6.1</u>	Are you presi	ently required by any federal, upgrading, or operating wast at could affect the discharges	ewater treatment ed described in this ap	quipment or practices or	any other enviro	
	6.2	Briefly identif	y each applicable project in the	ne table below.			
ents				Affected		Final Comp	liance Date
nprovem		Brief Identif	ication and Description of Project	Outfalls (list outfall number)	Source(s) of Discharge	Required	Projecte
Upgrades and Improvements							
_	6.3		ached sheets describing any				nental
		☐ Yes		] No	Inderway or planned? (o	Not applicable	
ECTIO	/	Yes	NTAKE CHARACTERISTIC:	No S (40 CFR 122.21(C	<b>☑</b> G)(7))	Not applicable	oles vou mus
ECTIO	See the	Yes FLUENT AND I		No 6 (40 CFR 122.21(0 d parameters you ar	<b>☑</b> G)(7))	Not applicable	oles you mus
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	See the complete Table 7.1	Yes  FLUENT AND I e instructions to ete. Not all appli A. Convention Are you required outfalls?  Yes	NTAKE CHARACTERISTIC: o determine the pollutants and icants need to complete each all and Non-Conventional Presting a waiver from your NP	No S (40 CFR 122.21(0 d parameters you are table. collutants DES permitting aut	(7)) re required to monitor an hority for any Table A po  ✓ No → SKIP to Item	Not applicable ad, in turn, the tabulatants for any o	f your
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S	See the complete Table 7.1	Yes  FLUENT AND I e instructions to ete. Not all appli A. Convention Are you requ outfalls?  Yes  If yes, indicat for all outfalls  Outfal	NTAKE CHARACTERISTIC: o determine the pollutants and icants need to complete each all and Non-Conventional Plesting a waiver from your NP	No S (40 CFR 122.21(C) I parameters you are table. Collutants DES permitting autility of the check the appropries of the required information. Outfall numbers	Deprivation to the application to the application.	Not applicable ad, in turn, the tabulatants for any of 7.3.  hat you are requestions and the second	f your
S	See the complete Table 7.1	Yes  FLUENT AND I e instructions to ete. Not all appli A. Convention Are you required outfalls?  Yes  If yes, indicate for all outfalls  Outfall I am required	NTAKE CHARACTERISTICS of determine the pollutants and icants need to complete each all and Non-Conventional Presting a waiver from your NP te the applicable outfalls below. Attach waiver request and call number	No S (40 CFR 122.21(C) It parameters you are table. Collutants DES permitting autility W or check the appropriate required inform Outfall number	Topriate box to indicate the nation to the application.	Not applicable ad, in turn, the tabulutants for any of 7.3.	f your
SS	See the complete Table 7.1	Yes  FLUENT AND I e instructions to ete. Not all appli  A. Convention  Are you requ outfalls?  Yes  If yes, indicat for all outfalls  Outfal  I am red Have you con	NTAKE CHARACTERISTICS of determine the pollutants and icants need to complete each real and Non-Conventional Projecting a waiver from your NP te the applicable outfalls below. Attach waiver request and control in the project in the	No S (40 CFR 122.21(C) It parameters you are table. Collutants DES permitting aution We or check the appropriate required inform Outfall number of the policy of the required informulation of the policy of the pol	To any Table A portion to the application.  SKIP to Item repriate box to indicate the nation to the application.  SKIP to Item 7.4.  ach of your outfalls for warming to the properties of the	Not applicable ad, in turn, the tabulation and the foliation of the foliat	f your esting a waiv
S	See the complete Table 7.1	Yes  FLUENT AND I e instructions to ete. Not all appli  A. Convention  Are you requ outfalls?  Yes  If yes, indicat for all outfalls  Outfal  I am red Have you con	NTAKE CHARACTERISTICS of determine the pollutants and icants need to complete each rail and Non-Conventional Presting a waiver from your NP te the applicable outfalls below. Attach waiver request and call number questing a waiver for some populating a waiver for all pollutant po	No S (40 CFR 122.21(C) It parameters you are table. Collutants DES permitting aution We or check the appropriate required inform Outfall number of the policy of the required informulation of the policy of the pol	To any Table A portion to the application.  SKIP to Item repriate box to indicate the nation to the application.  SKIP to Item 7.4.  ach of your outfalls for warming to the properties of the	Not applicable ad, in turn, the tabulation and the foliation of the foliat	f your esting a waiv
	See the complete Table 7.1 7.2	Yes  FLUENT AND I e instructions to ete. Not all appli A. Convention Are you required outfalls?  Yes  If yes, indicate for all outfalls  Outfall I am required I am required Have you contrequested and Yes  B. Toxic Metal	NTAKE CHARACTERISTICS of determine the pollutants and icants need to complete each real and Non-Conventional Projecting a waiver from your NP steet the applicable outfalls below. Attach waiver request and contain number questing a waiver for some progressing a waiver for all pollutant attached the results to this standard attached, Total Phenols,	No S (40 CFR 122.21(C) d parameters you are table. ollutants DES permitting autility of check the appropriate required inform Outfall number of the pollutants at all outfalls ants at all outfalls ole A pollutants at ele application package and Organic Toxic	re required to monitor and hority for any Table A portant and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application and the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the propriate box to indi	Not applicable ad, in turn, the tab ollutants for any of 7.3.  Outfall number which a waiver ha	f your esting a waiv
S	See the complete Table 7.1 7.2	Yes  FLUENT AND I e instructions to ete. Not all applie A. Convention Are you required outfalls?  Yes  If yes, indicate for all outfalls  Outfall I am red I am red Have you contrequested and Yes  B. Toxic Metal Do any of the	NTAKE CHARACTERISTICS of determine the pollutants and icants need to complete each all and Non-Conventional Presting a waiver from your NP te the applicable outfalls below. Attach waiver request and call number questing a waiver for some propuesting a waiver for all pollutant mpleted monitoring for all Tall and attached the results to this	No S (40 CFR 122.21(C) d parameters you are table. ollutants DES permitting autilities outfall number of their required informoutfall number of their required informoutfall number of their particular at all outfalls and and outfalls application package and Organic Toxic tribute wastewater for the parameters of their particular tribute wastewater for the parameters of their parameters	re required to monitor and hority for any Table A portant and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application and the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the propriate box to indi	Not applicable ad, in turn, the tab ollutants for any of 7.3.  Outfall number which a waiver ha	f your esting a waiv
S	See the complete Table 7.1 7.2 7.3	Yes  FLUENT AND I e instructions to ete. Not all applie A. Convention Are you required outfalls?  Yes  If yes, indicate for all outfalls  Outfall I am red I am red Have you contrequested and Yes  B. Toxic Metal Do any of the	NTAKE CHARACTERISTICS of determine the pollutants and icants need to complete each real and Non-Conventional Projection and and Non-Conventional Projection and waiver from your NP and the the applicable outfalls below. Attach waiver request and contain a waiver for some projecting a waiver for all pollutant projection and attached the results to this as Cyanide, Total Phenols, as Cyanide, a	No S (40 CFR 122.21(C) d parameters you are table. ollutants DES permitting autilities outfall number of their required informoutfall number of their required informoutfall number of their particular at all outfalls and and outfalls application package and Organic Toxic tribute wastewater for the parameters of their particular tribute wastewater for the parameters of their parameters	re required to monitor and hority for any Table A portant and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the ser and the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application and the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the mation to the application are remainded by the series of the propriate box to indicate the propriate box to indi	Not applicable ad, in turn, the tabulatants for any of the following of the following primary industrials applicable and the primary in	f your esting a waiv

PA Identifi	cation Number	NPDES Permit Number		Facility N	ame		MB No. 2040-0004
ALD00	0645457	AL0003018	Internat	ional Pap	er - Riverdale		Expires 07/31/2026
7.6		plicable primary industry categories Exhibit 2C-3.	s and check th	e boxes i	ndicating the	required GC/MS fra	ction(s)
		Primary Industry Category				I GC/MS Fraction(s applicable boxes)	)
		Pulp and Paper Mills		☑ Volatile	e ☑ Acid	☑ Base/neutral	☑ Pesticide
				□ Volatile	e □ Acid	☐ Base/neutral	☐ Pesticide
				□ Volatile	e □ Acid	☐ Base/neutral	☐ Pesticide
7.7		checked "Testing Required" for all rections checked in Item 7.6?	required pollut	ants in Se	ections 2 thro	ugh 5 of Table B for	each of the
7.8	,	checked "Believed Present" or "Bel ng is not required?	ieved Absent"	for all po	lutants listed	in Sections 1 throug	h 5 of Table B
7.9	is required	provided (1) quantitative data for the or (2) quantitative data or other reated are "Believed Present" in your	quired informa				
7.1		pplicant qualify for a small busines		under the	criteria specif	ied in the instruction	s?
	□ Yes -	Note that you qualify at the top of then SKIP to Item 7.12.	of Table B,	✓ No			
7.1	determined	provided (1) quantitative data for the string is required or (2) quantitat you have indicated are "Believed P	tive data or an	explanati	on for those S		
Tab	le C. Certain Co	onventional and Non-Convention	nal Pollutants	3			
7.1	Have you in for all outfar	ndicated whether pollutants are "Balls?	elieved Prese	nt" or "Bel	ieved Absent	" for all pollutants lis	ted in Table C
7.1		completed Table C by providing quant an ELG? You must provide quant		en if the			directly or
7.1	4 Have you o	completed Table C by providing qu Believed Present"?	antitative data			hose pollutants for v	vhich you have
Tab	le D. Certain Ha	azardous Substances and Asbes	stos			A company that the control of the control of	
7.1	Have you in for all outfa	ndicated whether pollutants are "B alls?	elieved Prese	nt" or "Be	ieved Absent	" for all pollutants lis	ted in Table D
7.1		completed Table D by (1) describin oviding quantitative data, if available		the appli		its are expected to b	e discharged
Tab		trachlorodibenzo-p-Dioxin (2,3,7	R-TCDD)			MINISTER STATE	
7.1	7 Does the fa	acility use or manufacture one or manufacture active reason to believe that TCDD is	nore of the 2,3			listed in the instructi	ons, or do you
		→ Complete Table E.	or may be pre		→ SKIP to S	Section 8.	
7.1		completed Table E by reporting qua	alitative data f	or TCDD?	>		

EPA	Identification	on Number Ni	PDES Permit Number	Facility Name	OMB No. 2040-0004
А	LD00064	15457	AL0003018	International Paper - Riverdale	Expires 07/31/2026
SECTIO	N 8. US	ED OR MANUFACTURE	D TOXICS (40 CFR 122.21	(G)(9))	
ctured	<u>8.1</u>	Is any pollutant listed in an intermediate or final Yes		component of a substance used or n  No → SKIP to Sect	
Used or Manufactured Toxics	8.2	List the pollutants below 1.	w. Attach additional sheets, 4.	, if necessary.	
Jsed o		2.	5.	8.	
		3.	6,	9.	
SECTIO			STS (40 CFR 122.21(G)(1		
	9.1			that any biological test for acute or charges or (2) a receiving water in relati	
its		✓ Yes	als on (1) any or your dison	No → SKIP to Sect	
Tes	9.2	Identify the tests and th	eir purposes below.		
oxicity		Test(s)	Purpose of Test(s)	Submitted to NPDES Permitting Authority?	Date Submitted
Biological Toxicity Tests		Acute Toxicity Tests	Required by NPDES Permit	Yes No	01/18/2023
Biolc		Acute Toxicity Tests	Required by NPDES Permit	✓ Yes □ No	01/25/2022
		Acute Toxicity Tests	Required by NPDES Permit	✓ Yes □ No	01/28/2021
SECTIO	N 10. CC	ONTRACT ANALYSES (4	40 CFR 122.21(G)(12))		
	10.1	Were any of the analys	es reported in Section 7 pe	erformed by a contract laboratory or o	consulting firm?
		✓ Yes		No → SKIP to Sect	tion 11.
	10.2	Provide information for	each contract laboratory or	r consulting firm below.	
			Laboratory Number	1 Laboratory Number 2	Laboratory Number 3
		Name of laboratory/firm	Eurofins Penscola		12.1
Contract Analyses		Laboratory address	3355 McLemore Drive		
Cont		Phone number	(850) 474-1001		11
		Pollutant(s) analyzed	Form 2C Table A through Table C		

EPA	Identification	on Number	NPDES Permit Number		Facility Name		OMB No. 2040-0004 Expires 07/31/2026
1	ALD00064	15457	AL0003018		International Paper - Riverdal	e	Expires 07/3 1/2020
SECTIO	N 11. AE	DITIONAL IN	NFORMATION (40 CFR 122.2	21(G)(	13))		
	11.1	Has the NP	DES permitting authority requ	uested	additional information?		
E G		✓ Yes			No → SKIP t	o Sectio	n 12.
mati	11.2	List the info	rmation requested and attach	it to t	his application.		
ial Infor		1, ADEM Fo	rm 187		4.		-
Additional Information		2.			5.		
		3.			6.		
SECTIO					(40 CFR 122.22(A) AND (D))		
	12.1	For each se	ection, specify in Column 2 an	y attac	2C that you have completed and a chments that you are enclosing to all sections or provide attachment	alert the	
			Column 1		Colun	nn 2	
		✓ Section	n 1: Outfall Location		w/ attachments		
		✓ Section	n 2: Line Drawing	V	w/ line drawing	V	w/ additional attachments
		Section Treatr	n 3: Average Flows and nent	V	w/ attachments		w/ list of each user of privately owned treatment works
		☐ Section	n 4: Intermittent Flows		w/ attachments		
men		✓ Section	n 5: Production	V	w/ attachments		1,11,1111111111111111111111111111111111
Checklist and Certification Statement		☐ Section	n 6: Improvements		w/ attachments		w/ optional additional sheets describing any additional pollution control plans
Certifi					w/ request for a waiver and supporting information		w/ explanation for identical outfalls
st and			7		w/ small business exemption request		w/ other attachments
eckl			n 7: Effluent and Intake octeristics	V	w/ Table A	<b>V</b>	w/ Table B
ວົ				V	w/ Table C	<b>V</b>	w/ Table D
				V	w/ Table E	<b>V</b>	w/ analytical results as an attachment
		L Toxics			w/ attachments		
		Section Tests	on 9: Biological Toxicity		w/ attachments		
		✓ Section	on 10: Contract Analyses		w/ attachments		
		Inform			w/ attachments		
		1 / 1	on 12: Checklist and cation Statement		w/ attachments		-

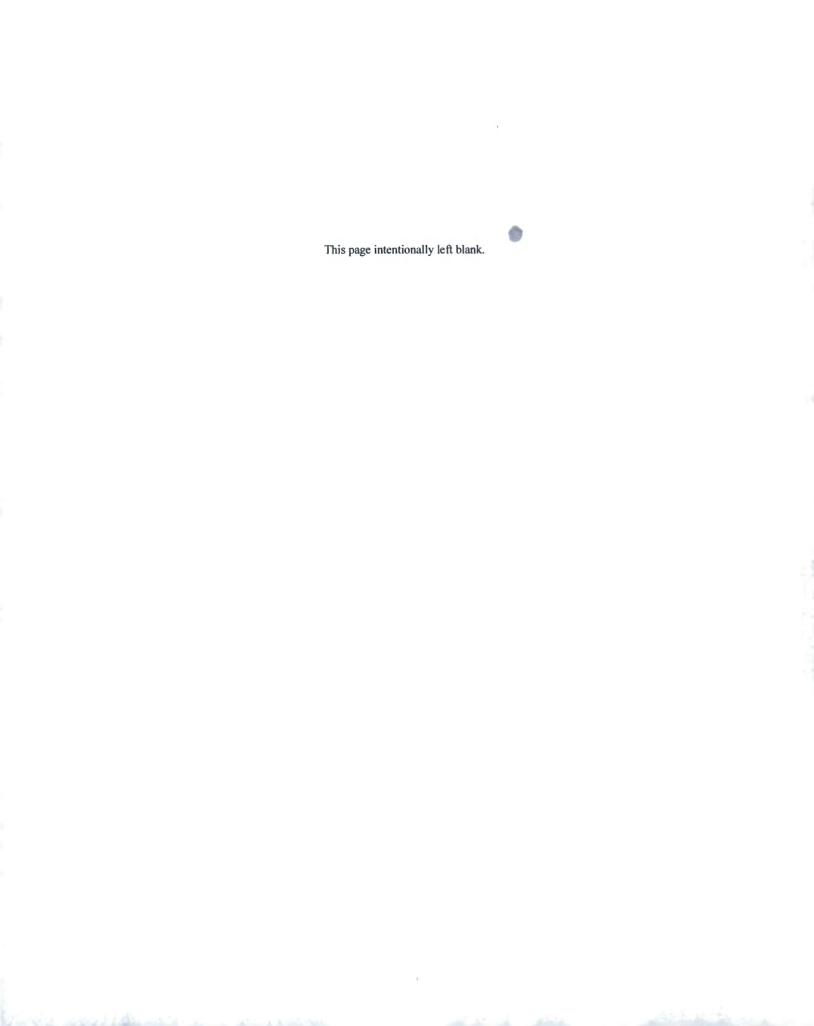
NPDES Permit Number OMB No. 2040-0004 **EPA Identification Number** Facility Name Expires 07/31/2026 ALD000645457 AL0003018 International Paper - Riverdale SECTION 12. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d)) (Continued) 12.2 Provide the following certification. (See instructions to determine the appropriate person to sign the application.) **Certification Statement** Checklist and Certification Statement I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Official title Name (print or type first and last name) Micah Evans Mill Manager Date signed Signature Mich Ers 2/30/2025

	EPA Identification Number ALD000645457		S Permit Number 0003018	Interna	Facility Name tional Paper - Riv	erdale	Outfall Number DSN002/DSN003			MB No. 2040-000 expires 07/31/202
TAE	BLE A. CONVENTIONAL AND N	Resign .	TIONAL POLLUTA	NTS (40 CF	R 122.21(g)(7)(iii		fluent		Intal (option	
	Pollutant	Waiver Requested (if applicable)	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
	Check here if you have applied	d to your NPDE	S permitting author	rity for a wai		ollutants listed on	this table for the not	ed outfall.		
_	Biochemical oxygen demand		Concentration	mg/L	51.89	43.75	44.23	312		
1.	(BOD <sub>5</sub> )		Mass	lb/day	34,643	16,027	18,453	312		
^	Chemical oxygen demand		Concentration	mg/L	180			1		
2.	(COD)		Mass	lb/day	59,937			1		
_			Concentration	mg/L	100			1		
3.	Total organic carbon (TOC)		Mass	lb/day	33,298			1		
			Concentration	mg/L	60.31	57.75	63.60	312		
4.	Total suspended solids (TSS)		Mass	lb/day	40,263	21,156	26,533	312		
			Concentration	mg/L	2.96		1.78	24		
5.	Ammonia (as N)		Mass	lb/day	1,976		742.59	24		
6.	Flow		Rate	MGD	80	43.90	49.99	730		
_	Temperature (winter)		°C	°C	32.22	20.22	17.89	299		
7.	Temperature (summer)		°C	°C	41.11	29.46	23.89	421		
	pH (minimum)		Standard units	S.U.	7.70		7.36	312		

<sup>9.00</sup> 1 Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

312

Standard units



i.	EPA Identification Number ALD000645457		ermit Number 03018	Int	Facility Name ernational Paper - F	Riverdale		outfall Number				No. 2040-0004 es 07/31/2026
rabl.	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence	ORGANIC or Absence tk one)		ITS (40 CF	R 122.21(g)(7)	(v))¹ Effli	uent			take tional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyse
	Check here if you qualify as a s 2 through 5 of this table. Note, f											
Section	on 1. Toxic Metals, Cyanide, and	d Total Pheno	ols			4						4-141
1.1	Antimony, total				Concentration	mg/L	<0.0015			1		
1.1	(7440-36-0)	V.		П	Mass	lb/day	<0.50			1	-	
1.2	Arsenic, total				Concentration	mg/L	<0.00039			1		
1,2	(7440-38-2)				Mass	lb/day	<0.13			1		
1.3	Beryllium, total				Concentration	mg/L	<0.00017			1		
1.0	(7440-41-7)				Mass	lb/day	<0.057			1		
1.4	Cadmium, total				Concentration	mg/L	<0.00028			1		
	(7440-43-9)				Mass	lb/day	<0.093	100		1	1 1 1 1 1	
1.5	Chromium, total				Concentration	mg/L	0.0027			1		
1.0	(7440-47-3)				Mass	lb/day	0.90			1	1	
1.6	Copper, total				Concentration	mg/L	0.0023			1	100	
	(7440-50-8)				Mass	lb/day	0.77			1		
1.7	Lead, total				Concentration	mg/L	0.0011			1		
	(7439-92-1)				Mass	lb/day	0.37			1		
1.8	Mercury, total				Concentration	mg/L	0.0000075			1		
	(7439-97-6)				Mass	lb/day	0.0029			1		
1.9	Nickel, total				Concentration	mg/L	0.0045			1		
	(7440-02-0)				Mass	lb/day	1.50			1		
1.10	Selenium, total (7782-49-2)				Concentration	mg/L	<0.00082			1		
	Silver, total				Mass Concentration	lb/day mg/L	<0.27			1		
					1.1.0003200120000	i mg/i	<0.00012			1	1	

	EPA Identification Number ALD000645457		ermit Number 03018	Inte	Facility Name ernational Paper - I	Riverdale		outfall Number				No. 2040-0004 es 07/31/2026
TABL	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence	ORGANIC or Absence ck one)	OXIC POLLUTAN	ITS (40 CF	R 122.21(g)(7)		uent			take tional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
1.12	Thallium, total				Concentration	mg/L	<0.00012		(ii) distribution	1		
1.12	(7440-28-0)	V			Mass	lb/day	<0.040			1		
1.13	Zinc, total				Concentration	mg/L	0.046			1		
1.13	(7440-66-6)				Mass	lb/day	15.32			1		
1.14	Cyanide, total				Concentration	mg/L	<0.0035			1		
1.14	(57-12-5)	V			Mass	lb/day	<1.17			1		Prints
1.15	Phenols, total				Concentration	mg/L	<0.0020			1		
1.15	Friendis, total	V			Mass	lb/day	<0.67			1		
Section	on 2. Organic Toxic Pollutants (	GC/MS Fract	ion-Volatil	e Compound	ds)						12.11	August 1
2.1	Acrolein				Concentration	mg/L	<0.0033			1		
2.1	(107-02-8)				Mass	lb/day	<1.10			1		
2.2	Acrylonitrile				Concentration	mg/L	<0.0028			1		
2.2	(107-13-1)				Mass	lb/day	<0.93			1		
2.3	Benzene				Concentration	mg/L	<0.00050			1		
2.3	(71-43-2)				Mass	lb/day	<0.17			1		
2.4	Bromoform				Concentration	mg/L	<0.00025			1		-
2.4	(75-25-2)				Mass	lb/day	<0.083			1		
2.5	Carbon tetrachloride				Concentration	mg/L	<0.00019			1		
2.5	(56-23-5)				Mass	lb/day	<0.063			1		
2.6	Chlorobenzene				Concentration	mg/L	<0.00015			1		
2.0	(108-90-7)				Mass	lb/day	<0.050			1		
2.7	Chlorodibromomethane				Concentration	mg/L	<0.00024			1		
2.7	(124-48-1)				Mass	lb/day	<0.080			1	11111	
2.8	Chloroethane				Concentration	mg/L	<0.00076			1		
2.0	(75-00-3)		hourd		Mass	lb/day	<0.25			1		

	EPA Identification Number ALD000645457		ermit Number 03018	Inte	Facility Name ernational Paper - F	tiverdale		outfall Number 002/DSN003				No. 2040-0004 es 07/31/2026
TABL	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence	ORGANIC T or Absence k one)	OXIC POLLUTAN	TS (40 CF	R 122.21(g)(7)	TO THE STATE OF	uent			take tional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
2.9	2-chloroethylvinyl ether				Concentration	mg/L	<0.0020			1		
2.5	(110-75-8)		Ц		Mass	lb/day	<0.67			1		
2.10	Chloroform (67-66-3)				Concentration	mg/L	<0.00090			1		
2.10	Chiorolomi (67-00-3)	V			Mass	lb/day	<0.30			1		
2.11	Dichlorobromomethane				Concentration	mg/L	<0.00050			1		
2.11	(75-27-4)	V			Mass	lb/day	<0.17			1		
2.12	1,1-dichloroethane				Concentration	mg/L	<0.00050			1		
2.12	(75-34-3)	V			Mass	lb/day	<0.17		-	1		
2.13	1,2-dichloroethane				Concentration	mg/L	<0.00019			1		
2.13	(107-06-2)				Mass	lb/day	<0.063			1		
2.14	1,1-dichloroethylene				Concentration	mg/L	<0.00050			1		
2.14	(75-35-4)				Mass	lb/day	<0.17			1		
2.15	1,2-dichloropropane				Concentration	mg/L	<0.00050			1		
2.10	(78-87-5)	V			Mass	lb/day	<0.17			1		
0.40	1,3-dichloropropylene				Concentration	mg/L	<0.0010			1		
2.16	(542-75-6)	[V]			Mass	lb/day	<0.33			1		
2.17	Ethylbenzene				Concentration	mg/L	<0.00050			1		
2.17	(100-41-4)	V			Mass	lb/day	<0.17			1		
2.18	Methyl bromide				Concentration	mg/L	<0.00098			1		
2.18	(74-83-9)	[V]			Mass	lb/day	<0.33			1		
2.19	Methyl chloride				Concentration	mg/L	<0.00090			1		
2.19	(74-87-3)	(V)		Ш	Mass	lb/day	<0.30			1		
2.20	Methylene chloride				Concentration	mg/L	<0.0030			1	-	
2.20	(75-09-2)				Mass	lb/day	<1.00			1		
2.21	1,1,2,2- tetrachloroethane				Concentration	mg/L	<0.00050			1		
2.21	(79-34-5)				Mass	lb/day	<0.17			1		

	EPA Identification Number ALD000645457		ermit Number 03018	inte	Facility Name ernational Paper - F	Riverdale		Outfall Number 1002/DSN003				No. 2040-0004 es 07/31/2026
TABL	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence	ORGANIC T or Absence k one)	OXIC POLLUTAN	TS (40 CF	R 122.21(g)(7)	(v))¹	uent			take tional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
2.22	Tetrachloroethylene	V			Concentration	mg/L	<0.00090			1		
2.22	(127-18-4)				Mass	lb/day	<0.30			1		
2.23	Toluene				Concentration	mg/L	<0.00090			1		
2.23	(108-88-3)				Mass	lb/day	<0.30			1		
2.24	1,2-trans-dichloroethylene				Concentration	mg/L	<0.00050			1	-	
2.24	(156-60-5)	V			Mass	lb/day	<0.17			1		
0.05	1,1,1-trichloroethane				Concentration	mg/L	<0.00018			1		
2.25	(71-55-6)				Mass	lb/day	<0.060			1		
0.00	1,1,2-trichloroethane	[7]			Concentration	mg/L	<0.00021			1		
2.26	(79-00-5)				Mass	lb/day	<0.070			1		
0.07	Trichloroethylene				Concentration	mg/L	<0.00015			1		
2.27	(79-01-6)				Mass	lb/day	<0.050			1	Y2	
	Vinyl chloride				Concentration	mg/L	<0.00050			1		
2.28	(75-01-4)				Mass	lb/day	<0.17			1		
Section	on 3. Organic Toxic Pollutants (	GC/MS Fract	ion—Acid C	ompounds)				THE REAL PROPERTY.				1.73
3.1	2-chlorophenol				Concentration	μg/L	<11			1		
3.1	(95-57-8)		Ц		Mass	lb/day	<3.66			1		
3.2	2,4-dichlorophenol				Concentration	μg/L	<9.6			1		
3.2	(120-83-2)	V			Mass	lb/day	<3.20			1		
22	2,4-dimethylphenol				Concentration	μg/L	<9.6			1		
3.3	(105-67-9)	V			Mass	lb/day	<3.20			1		
3.4	4,6-dinitro-o-cresol				Concentration	μg/L	<7.7			1		
3.4	(534-52-1)	V			Mass	lb/day	<2.56			1		-
3.5	2,4-dinitrophenol				Concentration	μg/L	<16			1		
3.5	(51-28-5)				Mass	lb/day	<5.33			1		

	EPA Identification Number ALD000645457		Permit Number 03018	Inte	Facility Name ernational Paper - I	Riverdale		Outfall Number 002/DSN003				No. 2040-0004 es 07/31/2026
TABL	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence	ORGANIC or Absence ck one)	TOXIC POLLUTAN	ITS (40 CF	R 122.21(g)(7)		uent	+0 -4		take tional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
3.6	2-nitrophenol	V			Concentration	µg/L	<12		(1)		1	
3.0	(88-75-5)		Ц		Mass	lb/day	<4.00				1	
3.7	4-nitrophenol				Concentration	µg/L	<10				1	
3.1	(100-02-7)		Ц		Mass	lb/day	<3.33				1	
3.8	p-chloro-m-cresol				Concentration	µg/L	<18				1	
3.0	(59-50-7)				Mass	lb/day	<5.99				1	
3.9	Pentachlorophenol				Concentration	µg/L	<6.7				1	
3.9	(87-86-5)	N.			Mass	lb/day	<2.23	<2.23			1	
3.10	Phenol	V			Concentration	µg/L	<5.3				1	
3.10	(108-95-2)	A			Mass	lb/day	<1.76				1	
3.11	2,4,6-trichlorophenol				Concentration	µg/L	<13				1	
3.11	(88-05-2)	N.			Mass	lb/day	<4.33				1	-01
Section	on 4. Organic Toxic Pollutants (	GC/MS Fract	ion—Base /	Neutral Con	pounds)					1100		
4.1	Acenaphthene				Concentration	µg/L	<0.77				1	
4.1	(83-32-9)	V	Ц		Mass	lb/day	<0.26				1	
4.2	Acenaphthylene				Concentration	µg/L	<0.82				1	
4.2	(208-96-8)	V			Mass	lb/day	<0.27				1	
4.3	Anthracene				Concentration	µg/L	<0.87				1	
4.0	(120-12-7)				Mass	lb/day	<0.29				1	
4.4	Benzidine				Concentration	μg/L	<96				1	
4.4	(92-87-5)				Mass	lb/day	<31.97				1	/ = =
4.5	Benzo (a) anthracene				Concentration	µg/L	3.2				1	
4.0	(56-55-3)				Mass	lb/day	1.07				1	
4.6	Benzo (a) pyrene				Concentration	µg/L	1.0				1	
4.0	(50-32-8)				Mass	lb/day	0.33				1	

	EPA Identification Number ALD000645457		ermit Number 03018	Inte	Facility Name ernational Paper - F	tiverdale		outfall Number 002/DSN003				No. 2040-0004 res 07/31/2026
TABL	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence	ORGANIC 1 or Absence ck one)	OXIC POLLUTAN	TS (40 CF	R 122.21(g)(7)		uent			take
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
4.7	3,4-benzofluoranthene				Concentration	μg/L	1.0			1		
4.7	(205-99-2)			П	Mass	lb/day	0.33			1		
4.8	Benzo (ghi) perylene				Concentration	μg/L	<1.1			1		
4.0	(191-24-2)				Mass	lb/day	<0.37			1		
4.9	Benzo (k) fluoranthene				Concentration	μg/L	1.5			1		
4.3	(207-08-9)			Ш	Mass	lb/day	0.50			1		
4.10	Bis (2-chloroethoxy) methane				Concentration	μg/L	<0.77			1		
4.10	(111-91-1)				Mass	lb/day	<0.26			1		
4.11	Bis (2-chloroethyl) ether				Concentration	μg/L	<13.0			1		
7.11	(111-44-4)				Mass	lb/day	<4.33			1		
4.12	Bis (2-chloroisopropyl) ether				Concentration	μg/L	<0.77			1		-
4.12	(102-80-1)		L.J		Mass	lb/day	<0.26			1		
4.13	Bis (2-ethylhexyl) phthalate				Concentration	µg/L	<24			1		
4.13	(117-81-7)		L-J		Mass	lb/day	<7.99			1		
4.14	4-bromophenyl phenyl ether				Concentration	μg/L	<0.96			1		
7.17	(101-55-3)	۳	L-J		Mass	lb/day	<0.32			1		
4.15	Butyl benzyl phthalate				Concentration	µg/L	1.2			1		
4.15	(85-68-7)		اسا		Mass	lb/day	0.40			1		
4.16	2-chloronaphthalene				Concentration	µg/L	<0.67			1		
7.10	(91-58-7)		Lud		Mass	lb/day	<0.22			1		
4.17	4-chlorophenyl phenyl ether				Concentration	μg/L	<9.6			1		
7.17	(7005-72-3)				Mass	lb/day	<3.20			1		
4.18	Chrysene				Concentration	µg/L	2.3			1		
7.10	(218-01-9)				Mass	lb/day	0.77			1		
4.19	Dibenzo (a,h) anthracene				Concentration	μg/L	<1.2			1		
7. 10	(53-70-3)				Mass	lb/day	<0.40		3	1		

	EPA Identification Number ALD000645457	1	Permit Number	Inte	Facility Name	liverdale		Outfall Number				No. 2040-0004 es 07/31/2026
TADI											None Samon	
IABL	E B. TOXIC METALS, CYANIDE	, IOTAL PHE	Presence	or Absence ck one)	OXIC POLLUTAN	15 (40 CF	R 122-21(g)(/		uent			take tional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
4.20	1,2-dichlorobenzene				Concentration	mg/L	<0.00050			1		
7.20	(95-50-1)				Mass	lb/day	<0.17			1		
4.21	1,3-dichlorobenzene				Concentration	mg/L	<0.00054			1		
4.21	(541-73-1)				Mass	lb/day	<0.18			1		
4.22	1,4-dichlorobenzene				Concentration	mg/L	<0.00064			1		
4.22	(106-46-7)				Mass	lb/day	<0.21			1		
4.23	3,3-dichlorobenzidine				Concentration	μg/L	<13			1		
4.23	(91-94-1)				Mass	lb/day	<4.33			1		
4.24	Diethyl phthalate				Concentration	μg/L	<1.2			1		
4.24	(84-66-2)				Mass	lb/day	<0.40			1		
4.25	Dimethyl phthalate				Concentration	μg/L	<0.82			1		
4.23	(131-11-3)				Mass	lb/day	<0.27			1		
4.26	Di-n-butyl phthalate				Concentration	μg/L	<6.7			1		-
4.20	(84-74-2)				Mass	lb/day	<2.23			1		
4.27	2,4-dinitrotoluene				Concentration	μg/L	<9.2			1		
4.21	(121-14-2)				Mass	lb/day	<3.06			1		
4.28	2,6-dinitrotoluene				Concentration	μg/L	<9.2			1	-	
4.20	(606-20-2)				Mass	lb/day	<3.06			1		
4.29	Di-n-octyl phthalate	V			Concentration	μg/L	1.0			1		
4.29	(117-84-0)				Mass	lb/day	0.33			1		
4.30	1,2-Diphenylhydrazine				Concentration	μg/L	<4.8			1		
4.00	(as azobenzene) (122-66-7)				Mass	lb/day	<1.60			1		
4.31	Fluoranthene	V			Concentration	µg/L	<0.87			1		
7.01	(206-44-0)			J	Mass	lb/day	<0.29			1		
4.32	Fluorene				Concentration	μg/L	<0.87			1		
7.02	(86-73-7)				Mass	lb/day	<0.29			1		

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	EPA Identification Number	NPDES Permit Number AL0003018			Facility Name	Outfall Number			OMB No. 2040-0004 Expires 07/31/2026			
	ALD000645457				ernational Paper - F			002/DSN003			САФІІ	25 01/31/2020
TABL	LE B. TOXIC METALS, CYANIDE Pollutant/Parameter (and CAS Number, if available)	Testing Required	Presence or Absence		OXIC POLLUTANTS (40 CF		R 122.21(g)(7)(v)) <sup>1</sup> Effluent				Intake (optional)	
			Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
4.33	Hexachlorobenzene (118-74-1)	Ø			Concentration	μg/L	<0.82			1		
4.00					Mass	lb/day	<0.27			1		
4.34	Hexachlorobutadiene (87-68-3)	Ø			Concentration	μg/L	<17			1		
4.34					Mass	lb/day	<5.66			1		
4.35	Hexachlorocyclopentadiene	V			Concentration	μg/L	<13			1		
4.55	(77-47-4)	V			Mass	lb/day	<4.33			1		
4.36	Hexachloroethane	<b>V</b>			Concentration	μg/L	<20			1		
4.30	(67-72-1)				Mass	lb/day	<6.66			1		
4.37	Indeno (1,2,3-cd) pyrene				Concentration	μg/L	<1.1			1		
4.37	(193-39-5)				Mass	lb/day	<0.37			1		
4.38	Isophorone	V			Concentration	μg/L	<0.67			1		
4.30	(78-59-1)				Mass	lb/day	<0.22			1		
4.39	Naphthalene (91-20-3)	<b>V</b>			Concentration	μg/L	<0.82			1		
4.35					Mass	lb/day	<0.27			1		
4.40	Nitrobenzene	Ø			Concentration	μg/L	<0.63			1		
4.40	(98-95-3)				Mass	lb/day	<0.21			1		
4.41	N-nitrosodimethylamine	<b>V</b>			Concentration	μg/L	<17			1		
4.41	(62-75-9)				Mass	lb/day	<5.66			1		
4.42	N-nitrosodi-n-propylamine	V			Concentration	μg/L	<16			1		
4.42	(621-64-7)				Mass	lb/day	<5.33			1		
4.43	N-nitrosodiphenylamine	V			Concentration	μg/L	<0.87			1		
4.40	(86-30-6)				Mass	lb/day	<0.29			1		
4.44	Phenanthrene	V			Concentration	μg/L	<0.87			1		
-1.44	(85-01-8)				Mass	lb/day	<0.29			1		
4.45	Pyrene				Concentration	μg/L	<1.0			1		
7.70	(129-00-0)				Mass	lb/day	<0.33			1		

EPA Identification Number NPDES Permit Number  ALD000645457 AL0003018			ber Facility Name International Paper - Riverdale				outfall Number			OMB No. 2040-0004 Expires 07/31/2026		
TABL	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence or Absence (check one)		OXIC POLLUTAN	ITS (40 CF	R 122.21(g)(7)	(v))¹ Effi	uent		Intake (optional)	
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
4.46	1,2,4-trichlorobenzene				Concentration	μg/L	<0.87				1	
	(120-82-1)				Mass	lb/day	<0.29				1	
Section	on 5. Organic Toxic Pollutants (	GC/MS Fract	ion—Pestic	ides)	T							
5.1	Aldrin				Concentration	mg/L	<0.0000015				1	
	(309-00-2)				Mass	lb/day	<0.00050				1	
5.2	α-BHC	<b>7</b>			Concentration	mg/L	<0.0000023				1	
	(319-84-6)		_		Mass	lb/day	<0.00077		***************************************		1	
5.3	β-ВНС		П	L L M	Concentration	mg/L	<0.0000066				1	
0.0	(319-85-7)				Mass	lb/day	<0.0022				1	
5.4	у-ВНС				Concentration	mg/L	<0.0000016				1	
5.4	(58-89-9)				Mass	lb/day	<0.00053				1	
5.5	δ-ВНС				Concentration	mg/L	<0.0000033	,-			1	
5.5	(319-86-8)				Mass	lb/day	<0.00011				1	
5.6	Chlordane				Concentration	mg/L	<0.000021				1	
0.0	(57-74-9)	V			Mass	lb/day	<0.0070				1	
5.7	4,4'-DDT				Concentration	mg/L	<0.0000069				1	
5.7	(50-29-3)				Mass	lb/day	<0.0023				1	
5.8	4,4'-DDE	Ø			Concentration	mg/L	<0.0000044				1	
J.0	(72-55-9)				Mass	lb/day	<0.0015				1	
5.9	4,4'-DDD				Concentration	mg/L	<0.0000032				1	
0.0	(72-54-8)				Mass	lb/day	<0.0011				1	
5.10	Dieldrin				Concentration	mg/L	<0.0000018				1	
0.10	(60-57-1)				Mass	lb/day	<0.00060				1	
5.11	α-endosulfan				Concentration	mg/L	<0.0000038				1	
J. I I	(115-29-7)				Mass	lb/day	<0.0013				1	

	EPA Identification Number ALD000645457	NPDES Permit Number AL0003018			Facility Name ernational Paper - F	Riverdale		outfall Number			OMB No. 2040-0004 Expires 07/31/2026		
TABL	E B. TOXIC METALS, CYANIDE	Presen		S, AND ORGANIC TOXIC POLLUTANTS (40 CFR esence or Absence (check one)		R 122.21(g)(7)		uent		Intake (optional)			
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses	
5.12	β-endosulfan	V			Concentration	mg/L	<0.0000083				1		
5.12	(115-29-7)	V			Mass	lb/day	<0.0028				1		
5.13	Endosulfan sulfate				Concentration	mg/L	<0.000017				1		
5.15	(1031-07-8)				Mass	lb/day	<0.0057				1		
5.14	Endrin				Concentration	mg/L	<0.0000041				1		
3.14	(72-20-8)		-		Mass	lb/day	<0.0014				1		
5.15	Endrin aldehyde				Concentration	mg/L	<0.0000059				1		
J.13	(7421-93-4)				Mass	lb/day	<0.0020				1		
5.16	Heptachlor				Concentration	mg/L	<0.0000059				1		
3.10	(76-44-8)				Mass	lb/day	<0.0020				1		
5.17	Heptachlor epoxide				Concentration	mg/L	<0.0000023				1		
0.11	(1024-57-3)				Mass	lb/day	<0.00077				1		
5.18	PCB-1242				Concentration	mg/L	<0.00013				1		
3.10	(53469-21-9)			<u> </u>	Mass	lb/day	<0.043				1		
5.19	PCB-1254				Concentration	mg/L	<0.00011				1		
0.10	(11097-69-1)				Mass	lb/day	<0.037				1		
5.20	PCB-1221				Concentration	mg/L	<0.00014				1		
3.20	(11104-28-2)				Mass	lb/day	<0.047				1		
5.21	PCB-1232				Concentration	mg/L	<0.00012				1		
J.Z I	(11141-16-5)		L L		Mass	lb/day	<0.040				1		
5.22	PCB-1248 (12672-29-6)				Concentration	mg/L	<0.000090				1		
J.L.L					Mass	lb/day	<0.030				1		
5.23	PCB-1260 (11096-82-5)				Concentration	mg/L	<0.000043				1		
3.23	,				Mass	lb/day	<0.014				1		
5.24	PCB-1016 (12674-11-2)				Concentration	mg/L	<0.000059				1		
J.E. 7	(120/4-11-2)			_	Mass	lb/day	<0.020				1		

	EPA Identification Number ALD000645457	AL00	ermit Number 03018		Facility Name Outfall Number  ernational Paper - Riverdale DSN002/DSN003			OMB No. 2040 Expires 07/31				
TABL	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence	ORGANIC T or Absence ck one)	OXIC POLLUTAN	TS (40 CF	R 122.21(g)(7)		uent		1000	ake ional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
5.25	Toxaphene	V		П	Concentration	mg/L	<0.00014	- 1-		_	1	
5.25	(8001-35-2)				Mass	lb/day	<0.047				1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



	EPA Identification Number ALD000645457		NPDES Permit Number AL0003018			Facility Name onal Paper - Riverdale				OMB No. 204 Expires 07/3	
TAE	BLE C. CERTAIN CO	Presence o	AND NON Co or Absence k one)	ONVENTIONAL PO	OLLUTANTS	5 (40 CFR 122.21(g)		uent		Inta (optic	
	Pollutant	Believed Present	Believed Absent	Units (specify		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
	Check here if you be each pollutant.  Check here if you be each pollutant.										
1.	Bromide (24959-67-9)		<b></b>	Concentration Mass	mg/L lb/day	<7.9 <2,631			1		
2.	Chlorine, total residual		<b>V</b>	Concentration  Mass	mg/L lb/day	<0.057			1	0	
3.	Color	<b>V</b>		Concentration Mass	Color Unit	1,700 N/A			1		
4.	Fecal coliform	<b>V</b>		Concentration  Mass	CPU/100n	7,000 N/A			1		
5.	Fluoride (16984-48-8)		<b>Ø</b>	Concentration Mass	mg/L lb/day	<2.2 <732.56			1		
6	Nitrate-nitrite	<b>V</b>		Concentration Mass	mg/L lb/day	0.55 367.20		0.28 116.81	15 15		
7.	Nitrogen, total organic (as N)	<b></b>		Concentration Mass	mg/L lb/day	10.60		6.23 2,599	15 15		
8.	Oil and grease	<b>V</b>		Concentration Mass	mg/L lb/day	<1.3 <432.88			1		
9.	Phosphorus (as P), total (7723-14-0)	<b>V</b>		Concentration Mass	mg/L lb/day	9.20 6,142		2.04 851.06	15 15		
10.	Sulfate (as SO <sub>4</sub> ) (14808-79-8)	<b>V</b>		Concentration Mass	mg/L lb/day	270 89,905			1		
11.	Sulfide (as S)	<b>V</b>		Concentration	mg/L lb/day	0.52			1 1		

 EPA Identification Number
 NPDES Permit Number
 Facility Name
 Outfall Number
 OMB No. 2040-0004

 ALD000645457
 AL0003018
 International Paper - Riverdale
 DSN002/DSN003
 Expires 07/31/2026

ALD000645457		AL0003018 In		Internation	International Paper - Riverdale		e DSN002/DSN003			Expires 07/31/2026		
ГАВ	LE C. CERTAIN CO	NVENTIONAL	AND NON CO	NVENTIONAL PO	DLLUTANT	S (40 CFR 122.21(g)	(7)(vi)) <sup>1</sup>					
		Presence o					Efflo	uent		Intake (optional)		
	Pollutant	Believed Present	Believed Absent	Units (specify		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses	
12.	Sulfite (as SO <sub>3</sub> )		V	Concentration								
12.	(14265-45-3)			Mass								
13.	Surfactants	<b></b>		Concentration	mg/L	<0.067			1			
10.	Suriaciditis	Ľ	L L	Mass	lb/day	<22.31			1		(4)	
14.	Aluminum, total	V		Concentration	mg/L	0.60			1			
14.	(7429-90-5)	Į.	П	Mass	lb/day	199.79			1			
15.	Barium, total	<b>V</b>		Concentration	mg/L	0.17			1			
10.	(7440-39-3)	V	ш	Mass	lb/day	56.61			1			
16.	Boron, total	V		Concentration	mg/L	0.15			1			
10.	(7440-42-8)	V		Mass	lb/day	49.95			1			
17.	Cobalt, total			Concentration	mg/L	<0.0028			1			
11.	(7440-48-4)	L'		Mass	lb/day	<0.932			1			
18.	Iron, total			Concentration	mg/L	<0.40			1			
10.	(7439-89-6)	V		Mass	lb/day	<133.19			1			
19.	Magnesium, total	V		Concentration	mg/L	6.9			1			
19.	(7439-95-4)	V		Mass	lb/day	2,298			1			
00	Molybdenum,			Concentration	mg/L	<0.023			1			
20.	total (7439-98-7)			Mass	lb/day	<7.66			1			
	Manganese, total			Concentration	mg/L	0.68			1			
21.	(7439-96-5)	<b>V</b>		Mass	lb/day	226.43			1			
00	Tin. total			Concentration	mg/L	<0.008			1			
22.	(7440-31-5)		V	Mass	lb/day	<2.66			1			
22	Titanium, total		7	Concentration	mg/L	<0.009			1			
23.	(7440-32-6)			Mass	lb/day	<2.99			1			

	ALD000645457	oer	ALOOO:		Internation	onal Paper - Riverdale		DSN002/DSN003		OMB No. 2040-00 Expires 07/31/20		
TAB	LE C. CERTAIN CO	NVENTIONAL	AND NON CO	NVENTIONAL PO	LLUTANT	S (40 CFR 122.21(g)	(7)(vi)) <sup>1</sup>					
		Presence o	or Absence			Effluent				Intake (optional)		
	Pollutant	Believed Present	Believed Absent	Units (specify		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses	
24.	Radioactivity							11. J. H. H. S.	11177			
1-100	Alaba total	<b>V</b>	П	Concentration	pCi/L	<10.5			1			
	Alpha, total	V		Mass								
	Date total	<b>7</b>	П	Concentration	pCi/L	4.97			1			
	Beta, total			Mass								
	De form total		П	Concentration	pCi/L	0.0681			1			
	Radium, total	<b>V</b>		Mass								
THE	Dadium 200 total	[7]		Concentration	pCi/L	0.262			1			
	Radium 226, total	V		Mass								

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



	EPA Identification Number ALD000645457	NPDES Permit Number AL0003018		acility Name al Paper - Riverdale	Outfall Number DSN002/DSN003	OMB No. 2040-000 Expires 07/31/202
TAE	BLE D. CERTAIN HAZARDOUS	SUBSTANCES AND ASBESTO Presence or (check o	Absence	1(g)(7)(vii))¹		
1.00 m	Pollutant	Believed Present	Believed Absent	Reason Pollutan	t Believed Present in Discharge	Available Quantitative Data (specify units)
1.	Asbestos		<b>V</b>			
2.	Acetaldehyde	V		Publishe	ed industry data (NCASI)	
3.	Allyl alcohol		V			
4.	Allyl chloride		Ø			
5.	Amyl acetate		Ø			
6.	Aniline		V			
7.	Benzonitrile		V			
8.	Benzyl chloride		Ø			
9.	Butyl acetate					
10.	Butylamine					
11.	Captan		V	<u> </u>		
12.	Carbaryl					
13.	Carbofuran					
14.	Carbon disulfide	<b>V</b>		Publishe	ed industry data (NCASI)	
15.	Chlorpyrifos		<b>V</b>			
16.	Coumaphos		V			
17.	Cresol	V		Publishe	ed industry data (NCASI)	
18.	Crotonaldehyde		Ø			
10	Cyclohovano		Ø			

	EPA Identification Number ALD000645457	NPDES Permit Number AL0003018		acility Name nal Paper - Riverdale	Outfall Number DSN002/DSN003	OMB No. 2040-00 Expires 07/31/20
TAE	LE D. CERTAIN HAZARDOUS SUB	Presence o	r Absence	21(g)(7)(vii)) <sup>1</sup>		
	Pollutant	Believed Present	Believed Absent	Reason Pollut	ant Believed Present in Discharge	Available Quantitative Data (specify units)
20.	2,4-D (2,4-dichlorophenoxyacetic ac	id)	<b>V</b>			
21.	Diazinon		<b>V</b>			
22.	Dicamba		<b>V</b>			
23.	Dichlobenil		<b>V</b>			
24.	Dichlone				The second secon	
25.	2,2-dichloropropionic acid		<b>Ø</b>			
26.	Dichlorvos		<b>4</b>			
27.	Diethyl amine		<b>V</b>			- 1 = / Accessing
28.	Dimethyl amine		Ø			
29.	Dintrobenzene		<b>V</b>			
30.	Diquat		Ø			
31.	Disulfoton		<b>V</b>			
32.	Diuron		V			The state of the s
33.	Epichlorohydrin		<b>V</b>			
34.	Ethion		<b>V</b>		and the second s	
35.	Ethylene diamine		Ø			,
36.	Ethylene dibromide		. 🗸			
37.	Formaldehyde			Publis	shed industry data (NCASI)	
38.	Furfural		<b>V</b>			

	EPA Identification Number ALD000645457	NPDES Permit Number AL0003018		acility Name al Paper - Riverdale	Outfall Number DSN002/DSN003	OMB No. 2040-000 Expires 07/31/202
TAE	LE D. CERTAIN HAZARDOUS			1(g)(7)(vii))¹	to the contract of the man	
	Pollutant	Presence or (check of				Available Quantitative Data
	Poliutant	Believed Present	Believed Absent	Reason Pollut	ant Believed Present in Discharge	(specify units)
39.	Guthion		Ø			
40.	Isoprene		Ø			
41.	Isopropanolamine		Ø			
42.	Kelthane		<b></b>			
43.	Kepone		Ø			
44.	Malathion		<b>V</b>			
45.	Mercaptodimethur		Ø			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
46.	Methoxychlor		Ø			
47.	Methyl mercaptan		Ø			
48.	Methyl methacrylate		<b>V</b>			
49.	Methyl parathion		V			
50.	Mevinphos		<b>V</b>			
51.	Mexacarbate		<b>V</b>			
52.	Monoethyl amine		<b>V</b>			v
53.	Monomethyl amine		V			
54.	Naled		<b>7</b>			A Section
55.	Naphthenic acid		Ø			
56.	Nitrotoluene		V			1 2 2 2 3 3 3 3
57.	Parathion		<b>V</b>			

	EPA Identification Number ALD000645457	NPDES Permit Number AL0003018		Facility Name nal Paper - Riverdale	Outfall Number DSN002/DSN003	OMB No. 2040-000 Expires 07/31/202
TAE	LE D. CERTAIN HAZARDOUS SUB	Presence of	Absence	21(g)(7)(vii)) <sup>1</sup>		
	Pollutant	Believed Present	Believed Absent	Reason Polluta	nnt Believed Present in Discharge	Available Quantitative Data (specify units)
58.	Phenolsulfonate		V	-		
59.	Phosgene		V			
60.	Propargite		Ø			
61.	Propylene oxide		Ø			
62.	Pyrethrins		<b>V</b>			
63.	Quinoline		<b>7</b>			
64.	Resorcinol		<b>7</b>			
65.	Strontium		Ø			
66.	Strychnine		Ø			
67.	Styrene	Ø		Publis	hed industry data (NCASI)	
68.	2,4,5-T (2,4,5-trichlorophenoxyacetic acid)					
69.	TDE (tetrachlorodiphenyl ethane)		✓			
70.	2,4,5-TP [2-(2,4,5-trichlorophenoxy) propanoic acid]		V			
71.	Trichlorofon		Ø			
72.	Triethanolamine		Ø			
73.	Triethylamine		V			
74.	Trimethylamine		V			
75.	Uranium		Ø			
76.	Vanadium			Publis	hed industry data (NCASI)	

	EPA Identification Number ALD000645457	NPDES Permit Number AL0003018			Outfall Number DSN002/DSN003	OMB No. 2040-0004 Expires 07/31/2026
TAE	LE D. CERTAIN HAZARDOUS SUBST	ANCES AND ASBEST	OS (40 CFR 122.2	21(g)(7)(vii))¹		
	Pollutant	Presence o				Available Quantitative Data
	Politicality	Believed Present	Believed Absent	Reason Pollutan	t Believed Present in Discharge	(specify units)
77.	Vinyl acetate			Publishe	ed industry data (NCASI)	The Think Hall
78.	Xylene	7		Publishe	ed industry data (NCASI)	
79.	Xylenol		Ø			
80.	Zirconium		<b>4</b>			

Facility Name

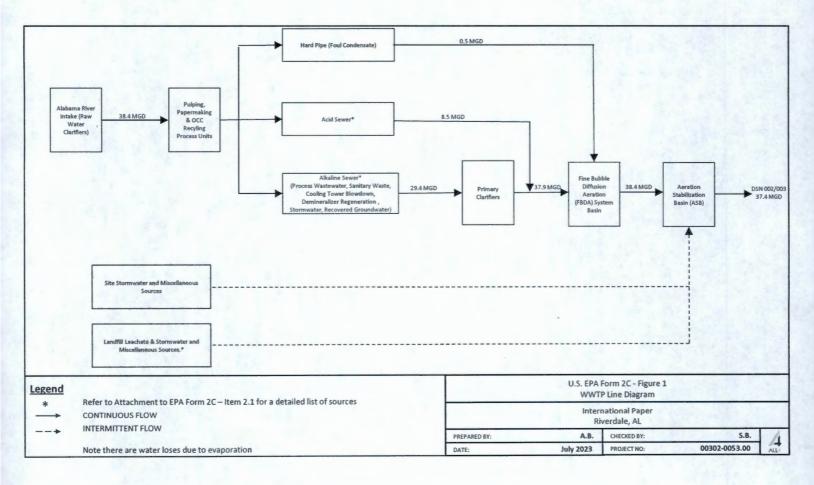
Outfall Number

NPDES Permit Number

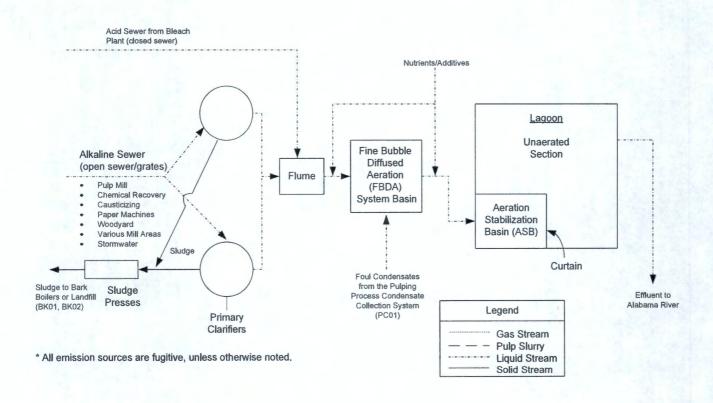
<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



		Inter	Facility Name rnational Paper - Riverdale	Outfall Number DSN002/DSN003	OMB No. 2040-0004 Expires 07/31/2026			
RODIBENZO P DIOX	(IN (2,3,7,8 T	CDD) (40 C	FR 122.21(g)(7)(viii))					
TCDD Congeners	Abs	ence		Results of Screening P	rocedure			
THE RESERVE OF THE PARTY OF THE	Believed Present	Believed Absent						
		Ø						
	ALOOO  RODIBENZO P DIOX  TCDD  Congeners Used or Manufactured	TCDD Congeners Used or Manufactured Present  Prese Abs (chec Present	AL0003018 Inter  CODIBENZO P DIOXIN (2,3,7,8 TCDD) (40 C  TCDD Congeners Used or Manufactured  Relieved Present Absent	AL0003018 International Paper - Riverdale  CODIBENZO P DIOXIN (2,3,7,8 TCDD) (40 CFR 122.21(g)(7)(viii))  TCDD Presence or Absence (check one) Used or Manufactured Believed Present Absent  The Mill is required to monitor	AL0003018 International Paper - Riverdale DSN002/DSN003  ODIBENZO P DIOXIN (2,3,7,8 TCDD) (40 CFR 122.21(g)(7)(viii))  TCDD Congeners Used or Manufactured Believed Present Absent  Helieved Present Absent The Mill is required to monitor 2,3,7,8-TCDD at DSN002 and D			



#### Process Flow Diagram - Wastewater Collection and Treatment (WW01)\*



#### U.S. EPA Form 2C Item 2.1:

#### Operations Contributing Wastewater:

Wastewater contributions include wastewater from kraft pulp and paper mill and recycled pulp mill; boiler and cooling tower blowdown; sludge dewatering liquid; lime kiln scrubber and boiler scrubber wastewater; miscellaneous wastewaters from shops and offices; sanitary wastewater, contaminated groundwater from a groundwater remediation project and process area stormwater. Bleached Kraft pulping, papermaking, OCC plant process effluents and now unbleached Kraft pulping, are contained in the following streams: A). Alkaline sewer, B). Acid sewer, C). Fine Bubble Diffused Aeration (FBDA) system influent, D). Final Aerated Stabilization (ASB) influent.

A). The alkaline sewer normally flows to two primary clarifiers operating in parallel. Contributors to this sewer include:

- Bleaching (sodium hydroxide, hydrogen peroxide and oxygen extraction stages)
- Sanitary waste
- Kraft pulping
- Brown stock washers
- Chemical recovery
- Causticizing
- · Boiler water
- Wood waste boiler scrubber discharge
- Demineralizer regenerate
- Cooling tower blowdown
- Paper machines and finishing areas
- Precipitated calcium carbonate plant
- Primary clarifier screw press drainage
- Hydraulic, lubricating, or fuel oil from equipment leaks
- Fuel oil and lubrication oil secondary containment stormwater
- Water layer from oil/water separators
- Turpentine recovery and storage
- Tall oil recovery, acidulation and storage
- OCC plant
- Quality control laboratories
- Sludge/ash stormwater runoff
- Stormwater from plant site
- Groundwater diesel fuel remediation
- Outside storage areas' stormwater.
- Vehicle and equipment maintenance activities (e.g. antifreeze from radiator flushing/draining, soap or degreasers from cleanup activities and other maintenance activities associated with the pulping and papermaking process)
- Miscellaneous discharges from activities supporting or related to the process such as rinsing out trucks, flushing spent ion exchange resin and other activities associated with the pulping and papermaking process.

- B) The acid sewer bypasses the primary clarifiers and flows directly to the FBDA system. Contributors to this stream include:
  - Bleaching acid stages (chlorine dioxide)
  - · Bleach plant scrubber blowdown and overflow
  - · Chlorine dioxide generators and storage tanks
  - Miscellaneous discharges from activities supporting or related to the pulping and papermaking process
- C) The contributors that flow to the FBDA system are:
  - Acid sewer
  - Cluster rule "hard pipe" condensates
  - Wood waste storage stormwater
  - Outside storage area stormwater
  - Sanitary wastes
  - · Primary clarifiers overflows
  - · Groundwater from diesel fuel remediation
  - Miscellaneous discharge from activities supporting or related to the pulping and papermaking process
- D) The contributors that flow directly to the final effluent treatment basin include:
  - · Landfill stormwater and leachate
  - Raw process water clarified solids
  - Storm water and miscellaneous process waste from part of the causticizing area
  - Woodyard stormwater and wastewater
  - Precipitate calcium carbonate plant stormwater
  - · Outside storage area stormwater
  - Fuel oil and lubrication oil secondary containment stormwater
  - Hydraulic, lubrication, and fuel oils from equipment leaks
  - Raw water and portable water storage tanks overflow
  - Cooling tower blowdown water
  - Groundwater from diesel fuel remediation
  - · Water layer from oil/water separators
  - Miscellaneous discharges from activities supporting or related to the pulping and/or papermaking process.

#### **Treatment Description**

The majority of the process wastewater is directed to either the acid or alkaline process sewer. The alkaline sewer is split and flows to two primary clarifiers operating in parallel. The resulting solids are pumped to sludge presses where the separated liquid is allowed to flow back to the clarifiers. The clarified wastewater from the clarifiers mixes with acid process sewer forming a process wastewater with a pH of greater than 2 and less than 12.5. The wastewater enters the FBDA system basin. The cluster rule "hard pipe" condensates (cooking, turpentine recovery, non-condensable gas collection, evaporator 5th effect, etc.) are introduced to this basin. The process wastewater (effluent) exits the FBDA system into the ASB that is separated from the final polishing basin by a curtain. Stormwater

runoff from areas to the mill site including the permitted landfill, clarified solids from the mill process water clarifiers, woodyard wastewater, and lime kiln wastewater are contained in the waste streams that enter the final polishing basin. Effluent from the final polishing basin is discharged to the Alabama River through DSN002 and/or DSN003.

The wastewater treatment system includes the following major process components and systems:

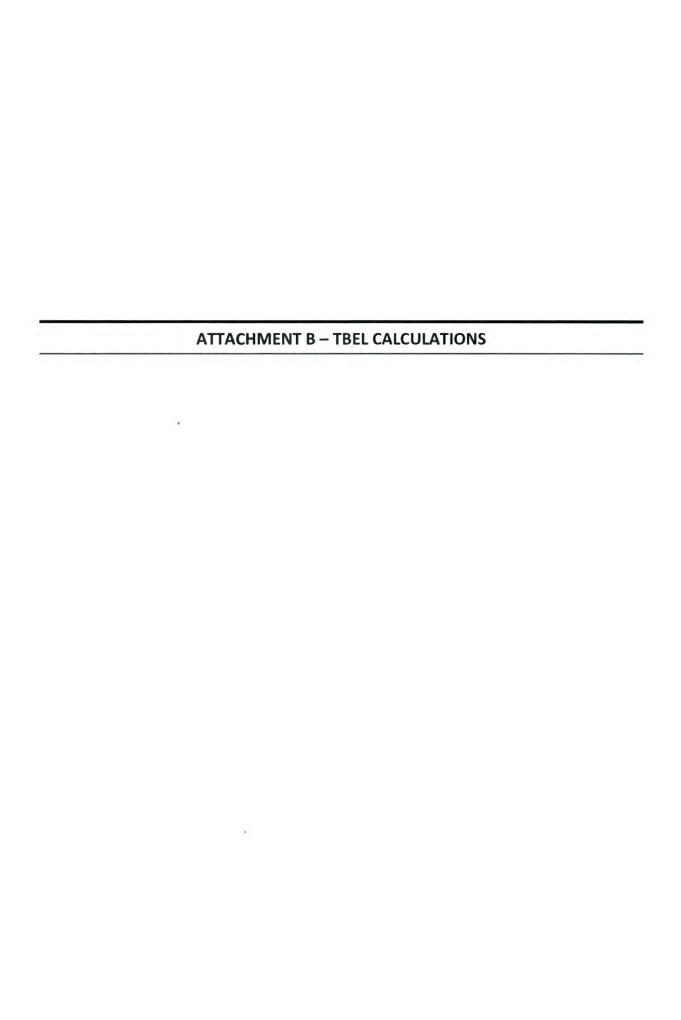
- Process Sewer System
- Influent collection
- Clarification
- Sludge thickening and dewatering
- · Sludge disposal/incineration
- Treatment Chemicals & bioaugmentation systems
- Fine Bubble Diffused Aeration System (FBDA)
- Aerated Stabilization Basin (ASB)
- · Quiescent/ settling zone
- Outfall to Alabama River

### U.S. EPA Form 2C, Item 3.1 Operations Contributing to Flow and Treatment Units International Paper - Riverdale, AL Mill

	Operations Cont	ributing Flow		Treatment Units		
Outfall No.	Operation	Average Flow	Description	Code From Table 2C-1	Final Disposal of Solid or Liquid Wastes Other Than by Discharge	
	Alkaline Sewer (A)	29.4 MGD	Mixing, sedimentation, neutralization, aerated lagoons, stabilization ponds, discharge to surface waters	1-O, 1-U, 2-K, 3-B, 3-G, 4-A	5-O or 5-O	
DSN002/	Acid Sewer (B)	8.5 MGD	Mixing, sedimentation, neutralization, screening, pressure filtration, aerated lagoon stabilization ponds, discharge to surface water	1-O, 1-U, 2-K, 1-T, 5-R, 3-B, 3-G, 4-A		
DSN003	Cluster Rule "Hard Pipes" Condensate (C)	0.5 MGD	Aerated lagoon, stabilization ponds, discharge to surface water	3-B, 3-G, 4-A		
	Landfilled leachate, remediated groundwater, stormwater, misc. sources	Intermittent	Mixing, sedimentation, aerated lagoon, stabilization ponds, discharge to surface water	1-O, 1-U, 3-B, 3-G, 4-A		

# U.S. EPA Form 2C, Item 5.4 Average Daily Production International Paper - Riverdale, AL Mill

	Average Da	aily Production	
Outfall Number	Operation, Product or Material	Quantity per Day	Unit of Measure
	Bleached Paper Production	498	MDT/day
	Unbleached Kraft Production	811	ADT/day
DSN002 & DSN003	Unbleached Pulp Entering No. 1 Bleach Plant	0	ADTUBP/day
	Unbleached Pulp Entering No. 2 Bleach Plant	492	ADTUBP/day
	OCC Production	1,299	ADT/day



## Table B-1 TBEL Calculations International Paper - Riverdale, AL Mill

40 CFR §430.22 - Subpart B Bleached Papergrade Kraft (BPT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue

ВРТ	pounds p	er 1,000 lb	Production	Effluent Limit lbs/d	
	Daily Max	Monthly Avg	1,000 lb/d	Daily Max	Monthly Avg
BOD <sub>5</sub>	13.65	7.10	997	13,606	7,077
TSS	24.00	12.90	997	23,923	12,859
Pentachlorophenol	1.60E-03	-	997	1.59	NA
Trichlorophenol	1.00E-03		997	1.00	NA
AOX	0.95	0.62	984	935	613
Chloroform <sup>(a)</sup>	6.92E-03	4.14E-03	984	6.81	4.07

40 CFR §430.32 - Subpart C Unbleached Kraft

ВРТ	pounds p	er 1,000 lb	Production Effluent L		imit lbs/d	
ВРІ	Daily Max	Monthly Avg	1,000 lb/d	Daily Max	Monthly Avg	
BOD <sub>5</sub>	5.60	2.80	1,622	9,084	4,542	
TSS	12.00	6.00	1,622	19,467	9,733	

40 CFR §430.102 - Subpart J Secondary Fiber Nondeink (where paperboard from waste paper is produced - corrugating medium finish subdivision)

ВРТ	pounds p	er 1,000 lb	Production	Effluent Limit lbs/d	
ВРІ	Daily Max	Monthly Avg	1,000 lb/d	Daily Max	Monthly Avg
BOD <sub>5</sub>	5.70	2.80	2,598	14,809	7,275
TSS	9.20	4.60	2,598	23,903	11,951

#### **Total TBELs**

ВРТ	Calculated E	fluent Limits Current Permit L		ermit Limits
	lbs	/day	lbs/day	
	Daily Max	Monthly Avg	Daily Max	Monthly Avg
BOD <sub>5</sub>	37,500	18,894	46,010	23,600
TSS	67,292	34,543	91,450	48,538
Pentachlorophenol	1.59	NA	4.77	N/A
Trichlorophenol	1.00	NA	30	N/A
AOX	935	613	2,884	1,889
Chloroform <sup>(a)</sup>	6.81	4.07	10.67	6.38

Post-Project Production Rates Used in TBEL Calculations

	Bleached Pa	per Production	Pulp Fed to	Bleach Plant
	MDT/d	1,000 lb/d	ADTUBP/d	1,000 lb/d
PM 15	498	997	492	984
PM 16	0	0	0	0
Total	498	997	492	984

Unbleached Production			
	ADT/d	1,000 lb/d	
PM 15 and 16 OCC furnished	1,299	2,598	
PM 16 Virgin pulp furnished	811	1,622	

<sup>(</sup>a) Chloroform TBEL applies to the Bleach Plant #2 internal outfall, DSN03BS.



# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

PERMIT RENEWAL APPLICATION

INTERNATIONAL PAPER - RIVERDALE MILL

OCTOBER 2023

SUBMITTED BY:



**International Paper** 

Riverdale Mill 601 County Road 78 Selma, AL 36703 SUBMITTED TO:



Alabama Department of Environmental Management

Water Division 1400 Coliseum Boulevard Montgomery, AL 36110-2400

RECEIVED

OCT 06 2023

IND/MUN BRANCH WATER DIVISION



RIVERDALE MILL 601 COUNTY ROAD 78 SELMA, AL 36703-8311 PHONE 334-872-3481

October 3, 2023

Alabama Department of Environmental Management (ADEM) Post Office Box 301463

Montgomery, AL 36130-1463

ATTN: Scott Jackson, Water Division

RE: International Paper - Riverdale Mill

National Pollution Discharge Elimination System Permit No. AL0003018

Renewal Application

Dear Mr. Jackson:

International Paper (IP) owns and operates a Kraft pulp and paper mill in Selma, AL along the Alabama River (Mill). The Mill currently operates pursuant to National Pollution Discharge Elimination System (NPDES) Permit No. AL0003018, which expires on March 31, 2024. The renewal application must be submitted 180 days prior to the expiration date; therefore, IP submits this renewal application on or prior to October 3, 2023.

The Mill's sampling effort for completion of US EPA Form 2F for this renewal application was delayed due to waiting for a qualifying rain event to occur to collect stormwater outfall samples. As a result of the delayed sampling, the Mill has not received all of the data from the contract laboratory, and data for a few parameters were missing. The Mill plans to submit an addendum to this renewal application to address the following items:

- Data for US EPA Form 2F Table 2C pollutants are expected by October 4, 2023.
- The contract laboratory was not able to analyze for the following US EPA Form 2F pollutants:
  - o 3,4,6-Trichloroguaiacol
  - o 3.4.6-Trichlorocatechol
  - o 3,4,5-Trichloroguaiacol
  - o 3,4,5-Trichlorocatechol
  - o Tetrachloroguaiacol
  - o Tetrachlorocatechol
  - o Trichlorosyringol
  - o 4,5,6-Trichloroguaiacol

The Mill plans to identify another laboratory that can conduct these analyses and will collect samples for all stormwater outfalls. Once all sampling has been conducted, the Mill will submit an addendum with a complete US EPA Form 2F.

Based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

If you have any questions or require additional information, please contact me by phone at 334-418-5232 or by email at Hugh.Gatwood@ipaper.com.

Sincerely,

Hugh Salwood

**Environmental Manager** 

cc:

Carla Pearson - International Paper

Susie Bowden - ALL4 LLC

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#### **LIST OF APPENDICES**

Appendix A - Application Forms

Appendix B - Laboratory Analytical Data

Appendix C - Receiving Stream Water Quality Monitoring Data



#### 1. INTRODUCTION

International Paper (IP) owns and operates a Kraft pulp and paper mill in Selma, AL (Riverdale Mill or Mill) along the Alabama River which produces white top linerboard and bleached printing paper. The Mill currently operates under National Pollutant Discharge Elimination System (NPDES) Permit No. AL0003018 issued by the Alabama Department of Environmental Management (ADEM). The Mill's NPDES Permit No. AL0003018 expires on March 31, 2024.

This application includes the requisite information as well as the completed NPDES application forms necessary for the Mill to renew its NPDES permit.

#### 1.1 APPLICATION ORGANIZATION

The Mill has prepared this application in accordance with ADEM requirements, and the application is organized in a report format. The application includes the following sections and appendices:

- <u>Section 2 Mill Overview and Discharge Points:</u> provides an overview of the Mill's current configuration and operations, and information for each of the Mill's discharge points.
- <u>Section 3 Regulatory and Permitting Background:</u> summarizes the Federal and State regulations to which the Mill is subject.
- <u>Section 4 Monitoring Requirements and Discharge Limitations:</u> provides an explanation of discharge limit derivations and specific monitoring requirements for each outfall.
- <u>Section 5 Sampling and Analytical Considerations:</u> summarizes the method for evaluating pollutants to sample for process wastewater.
- <u>Section 6 Proposed Permit Revisions:</u> proposes revisions to the Mill's NPDES permit as part of the renewal process.
- Appendix A Application Forms: provides the required ADEM and U.S. Environmental Protection Agency (U.S. EPA) NPDES forms and associated attachments.
- Appendix B Laboratory Analytical Data: provides laboratory analytical data for each outfall.



#### 2. MILL OVERVIEW AND DISCHARGE POINTS

This section of the application provides a brief overview of the Mill's background information and its current configuration and operation.

#### 2.1 MILL LOCATION

The Mill is located east of Selma (Dallas County), Alabama. The Mill is along the Alabama River approximately 60 kilometers (km) west of Montgomery, AL. A Mill location map is provided in EPA Form 1 – Figure 1 of Appendix A on a section of United States Geological Survey (USGS) quadrangle. The geographical coordinates for the approximate center of the processing area of the Mill are:

Universal Transverse Mercator (UTM) Easting: 512,100 meters (m)

• UTM Northing: 3,587,500 m

UTM Zone:
16

North American Datum (NAD): 1983

Longitude (degrees, minutes, seconds): 86° 52′ 16.7″ W

Latitude (degrees, minutes, seconds): 32° 25' 28.3" N

#### 2.2 REGULATORY JURISDICTION

The Riverdale Mill is under the jurisdiction of the following State and Federal agencies:

ADEM U.S. EPA Water Division Region 4

1400 Coliseum Boulevard Sam Nunn Atlanta Federal Center

P.O. Box 301463 61 Forsyth Street, SW Montgomery, AL 36110 Atlanta, GA 30303

#### 2.3 MILL PROCESS DESCRIPTION

The Mill produces multiple types of paper for sale in various forms for printing and packaging products. Operating areas include a woodyard, pulping, bleach plants, causticizing and lime recovery, recovery boilers, a power boiler, bark boilers, a tall oil reactor, wastewater treatment, and reciprocating internal combustion engines.



#### 2.4 WASTEWATER TREATMENT DESCRIPTION

The Mill directs the majority of process wastewater to either an acid or alkaline process sewer. The alkaline sewer is split and flows to two parallel primary clarifiers. The resulting solids are pumped to sludge presses and the separated liquid continues to the flume and then into the Fine Bubble Diffused Aeration (FBDA) system basin. The acid sewer bypasses the primary clarifiers and is mixed with the liquid portion of the alkaline sewer (after primary clarification) prior to treatment in the aerated lagoon. Hard pipe condensates are introduced into the FBDA basin, and the effluent then enters an aeration stabilization basin (ASB). The effluent treated in the ASB then flows into a final polishing basin along with stormwater runoff and landfill leachate and is then discharged to the Alabama River.

#### 2.5 OUTFALL DESCRIPTIONS

The Mill has five permitted outfalls for the discharge of stormwater and treated wastewater, as well as two internal outfalls.

#### **External Outfalls:**

- Outfalls DSN002 and DSN003 Located on the northern side of the Mill property. Outfalls DSN002 and DSN003 discharge process wastewater, non-process wastewater such as sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater associated with industrial activity. Discharge typically occurs from only one of these outfalls at a time. The locations of Outfalls DSN002 and DSN003 are shown on U.S. EPA Form 1 Figure 2 of Appendix A.
- Outfall DSN004 Located in the southeastern area of the Mill property. Outfall DSN004 discharges stormwater runoff from process areas. The location of Outfall DSN004 is shown in U.S. EPA Form 1 Figure 2 of Appendix A.
- Outfall DSN005 Located in the southeastern area of the Mill property. Outfall DSN005 discharges stormwater runoff from process areas, as well as intermittent discharge of non-process wastewater from fire tank overflow. The location of Outfall DSN005 is shown in U.S. EPA Form 1 Figure 2 of Appendix A.
- Outfall DSN006 Located in the southeastern area of the Mill property. Outfall DSN006 discharges stormwater runoff from process areas. The location of Outfall DSN006 is shown in U.S. EPA Form 1 Figure 2 of Appendix A.



#### Internal Outfalls:

- Outfall DSN003A Consists of effluent from the No. 1 Bleaching System, and discharges upstream of the alkaline sewer.
- Outfall DSN003B Consists of effluent from the No. 2 Bleaching System, and discharges upstream of the alkaline sewer.



#### 3. REGULATORY AND PERMITTING BACKGROUND

The Mill is currently operating under NPDES permit number AL0003018 issued by ADEM with an expiration date of March 31, 2024. In accordance with Alabama Administrative Code (AAC) 335-6-6-.12(b), the Mill must apply for re-issuance of the permit at least 180 days prior to its expiration. Therefore, this permit application is being submitted prior to the October 3, 2023 expiration date.

Under the current NPDES permit, the Mill discharges process wastewater, sanitary wastewater, cooling tower blowdown, landfill leachate, and stormwater from industrial activities through five permitted outfalls to the Alabama River. Discharges of stormwater and treated wastewater are regulated by the NPDES program administered by ADEM. The NPDES program regulations applicable to the Mill are referenced in AAC Chapter 335-6-6 Volume I.

The process wastewaters generated at the Mill are regulated under the Effluent Guidelines and Standards for the Pulp, Paper, and Paperboard Point Source Category at 40 CFR Part 430, Subpart B – Bleached Papergrade Kraft and Soda Subcategory (Subpart B) and Subpart J – Secondary Fiber Non-Deink Subcategory (Subpart J). The significant pollutants regulated by the pulp and paper effluent guidelines include 5-day biochemical oxygen demand (BOD<sub>5</sub>), total suspended solids (TSS), adsorbable organic halogens (AOX), chloroform, pentachlorophenol, and trichlorophenol (TCP). Effluent limits derived from production pursuant to Subparts B and J are discussed in Section 4.1.

The Mill has certified that no chlorophenolic-containing biocides are being used onsite and is exempt from pretreatment standards for Pentachlorophenol and Trichlorophenol under 40 CFR Part 430 Section 36 and 106.

Section 316(b) of the Clean Water Act imposes requirements on cooling water intake structures to minimize environmental impacts due to the impingement of fish and shellfish on intake structures and the entrainment of eggs and larvae through cooling water systems. Pursuant to 40 CFR §125.91(a), cooling water intake structure requirements are applicable to existing facilities that use one or more cooling water intake structures with a cumulative design intake flow of greater than 2 million gallons per day (MGD) to withdraw water from waters of the U.S. and 25% or more of that water is used exclusively for cooling water purposes. The Mill withdraws more than 2 MGD from the Alabama River. However, less than 25% of the water withdrawn is used exclusively for cooling purposes, thus the requirements of Section 316(b)



of the Clean Water Act regarding design and operation of cooling water intake structures do not apply to the Mill. Additional information on the Mill's intake structure is provided in ADEM Form 187 in Appendix A.



### 4. MONITORING REQUIREMENTS AND DISCHARGE LIMITATIONS

The current monitoring requirements and discharge limitations for Outfalls DSN002 and DSN003 are provided in Table 4-1 below.

Table 4-1
Outfalls DSN002 and DSN003 Monitoring Requirements and Discharge Limitations

Parameter	Monthly Average	Daily Maximum	Monitoring Frequency
BOD <sub>5</sub> (lbs/day)	23,600	46,010	3x weekly, composite
pH	N/A <sup>(1)</sup>	N/A <sup>(1)</sup>	Daily, grab
TSS (lbs/day)	48,538	91,450	3x weekly, composite
Nitrogen, Ammonia Total (As N) (mg/L)	N/A <sup>(2)</sup>	N/A <sup>(2)</sup>	Monthly, composite (April – October)
Nitrogen, Kjeldahl Total (As N) (mg/L)	N/A <sup>(2)</sup>	N/A <sup>(2)</sup>	Monthly, composite (April – October)
Nitrate Plus Nitrate Total 1 Det. (As N) (mg/L)	N/A <sup>(2)</sup>	N/A <sup>(2)</sup>	Monthly, composite (April – October)
Phosphorus, Total (As P) (mg/L)	N/A <sup>(2)</sup>	N/A <sup>(2)</sup>	Monthly, composite (April – October)
Pentachlorophenol (lbs/day)	N/A <sup>(2)</sup>	6.28	Monthly, composite
Flow (MGD)	N/A <sup>(2)</sup>	N/A <sup>(2)</sup>	Daily, totalizer
Trichlorophenol (lbs/day)	N/A <sup>(2)</sup>	30.52	Monthly, composite
AOX (lbs/day)	1,889	2,884	Semi-Annually, composite
Toxicity, Ceriodaphnia Chronic	N/A	0 Pass (0)/Fail(1)	Annually, composite
Toxicity, Pimephales Chronic	N/A	0 Pass (0)/Fail(1)	Annually, composite
2,3,7,8- Tetrachlorodibenzo-P- Dioxin (lbs/day)	N/A	0.00000381	Annually, composite

<sup>(1)</sup> pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.

<sup>(2)</sup> If only one sampling event occurs during a month, the sampling result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.



#### 4.1 DERIVATION OF PERMIT LIMITS

The Mill is subject to effluent limitation guidelines (ELGs) under 40 CFR Part 430, Subpart B and Subpart J Subpart J. The best practicable control technology currently available (BPT) ELGs for bleached kraft facilities where pulp and fine paper are produced and secondary fiber non-deink facilities where paperboard from wastepaper is produced – corrugating medium finish subdivision, outlined in Subparts B and J, respectively, are applied to annual average paper production and old corrugated container (OCC) production in air-dried tons per day (ADT/day), accounting for downtime, to determine the Mill's technology based effluent limits (TBELs) for BOD<sub>5</sub> and TSS on a mass basis (lbs/day), as shown in Table 4-2.

Table 4-2 BPT ELG Factors

	Subpart B Bleached Kraft – Pulp & Fine Paper		Subp Corrugated N		
Parameter	Daily Maximum lb/1,000 lb	30-day Average lb/1,000 lb	Daily Maximum lb/1,000 lb	30-day Average lb/1,000 lb	
BOD₅	10.6	5.5	5.7	2.8	
TSS	22.15	11.9	9.2	4.6	

The best available technology economically achievable (BAT) ELGs for fiber lines that do not use an exclusively total chlorine free (TCF) bleaching process, shown in Table 4-3.

Table 4-3
BAT ELG Factors

Parameter	Daily Maximum	30-day Average	Unit
Chloroform	6.92	4.14	lb/1,000,000 lb
AOX	0.951	0.623	lb/1,000 lb

In 2020, the Mill completed the Bridge project, which converted the No. 15 Paper Machine for production of white top linerboard. The Mill reviewed annual production data for the past two calendar years since completion of the Bridge project to determine the production rate to be used for projecting technology-based discharge limitations. The production data from the last two years for No. 15 Paper Machine includes atypical market-related downtime and IP's business cycle is longer than two years. With only two



years of data post-project for No. 15 Paper Machine and the atypical market conditions of those two years, the Mill has utilized the Bridge project production projections to determine the contribution of bleached and secondary fiber furnishes when determining the projected TBELs. IP feels that the Mill will realize the Bridge project production levels during the next permit term. Since No. 16 Paper Machine was unaffected by the Bridge project, the Mill included calendar years 2018 through 2022 in the production data assessment. The total bleached paper production (i.e., 1,703 MDT/day) used in the TBEL determination was the sum of 2019 production for No. 16 Paper Machine (1,165 MDT/day) and the projected production for the Bridge project for No. 15 Paper Machine (538 MDT/day). The annual average paper production in units of machine-dried tons per day (MDT/day), the unbleached pulp production in units of air-dried metric tons per day (ADMT/day), and the OCC production, in units of ADT/day, are presented in in Table 4-4.

Table 4-4
Production Data

Year	Bleached Paper Production (MDT/day)	Unbleached Pulp Entering No. 1 Bleach Plant (ADMT/day)	Unbleached Pulp Entering No. 2 Bleach Plant (ADMT/day)	OCC Production (ADT/day)
2018	1,632			
2019	1,703			
2020	1,485			
2021	1,367	521	551	779
2022	1,501	579	524	753
Bridge Project Production	538 (No. 15 Paper Machine)	N/A	N/A	866

Table 4-5
Technology-Based Discharge Limitations

Parameter	Monthly Average (lbs/day)	Daily Maximum (lbs/day)
BOD <sub>5</sub>	23,586	45,982
TSS	48,506	91,391
AOX	1,552	2,370
Chloroform (Outfall DSN003A)	5.283	8.831
Chloroform (Outfall DSN003B)	5.033	8.412



The projected TBELs determined based on the Mill's production result in limits slightly lower than the current permit.



### 5. SAMPLING AND ANALYTICAL CONSIDERATIONS

The ADEM renewal process requires use of U.S. EPA's Forms 2C and 2F, which provide a thorough listing of potential pollutants in wastewater and stormwater to be considered for sampling and analysis. The Mill has reviewed the sampling requirements for process wastewater and stormwater referenced in Forms 2C and 2F. Table 5-1 and Table 5-2 outline how each pollutant was selected to be analyzed in accordance with guidance in Section 7 of Forms 2C and 2F.

Table 5-1
Form 2C Pollutant Sampling Requirements

Table Number Table Description		Outfalls DSN002 and DSN003
Form 2C Table A	Conventional and Nonconventional Pollutants	Data required for all pollutants.
Form 2C Table B, Section 1	Toxic Metals, Cyanide, and Total Phenols	Data required for all pollutants
Form 2C Table B, Section 2	Organic Toxic Pollutants (GC/MS Fraction – Volatile Compounds)	Data required for all pollutants
Form 2C Table B, Section 3	Organic Toxic Pollutants (GC/MS Fraction – Acid Compounds)	Data required for all pollutants
Form 2C Table B, Section 4	Organic Toxic Pollutants (GC/MS Fraction – Base/Neutral Compounds)	Data required for all pollutants
Form 2C Table B, Section 5	Organic Toxic Pollutants (GC/MS Fraction – Pesticides)	Data required for all pollutants
Form 2C Table C	Certain Conventional and Non- Conventional Pollutants	Data required for all pollutants "believed present"
Form 2C Table E	2,3,7,8-Tetracholodibenzo-p- Dioxin	Data required for all pollutants "believed present"



Table 5-2
Form 2F Pollutant Sampling Requirements

Table Number	Table Description	Outfalls DSN004, DSN005, and DSN006
Form 2F Table A	Conventional and Nonconventional Parameters	Data required for all parameters
Form 2F Table B	Certain Conventional and Nonconventional Pollutants	Data required for each pollutant limited by the ELGs of 40 CFR Part 30, Subparts B and J.
Form 2F Table C	Toxic Pollutants, Certain Hazardous Substances, and Asbestos	Data required for all pollutants "believed present"

Analytical laboratory data is included in Appendix B. Sampling was performed on August 8 and 28, 2023 for Outfalls DSN002 and DSN003 and August 29, 2023 for Outfalls DSN004, DSN005, and DSN006. The samples were analyzed by Eurofins. In addition, Discharge Monitoring Report (DMR) data from May 2021 – April 2023 for flow, pH, BOD<sub>5</sub>, TSS, nitrate, ammonia, and total Kjeldahl nitrogen (TKN) were used to supplement the lab analytical data.



### 6. PROPOSED PERMIT REVISIONS

As part of the NPDES renewal application process, the Mill is requesting revisions to certain existing permit monitoring requirements as discussed and substantiated in the following sections.

### 6.1 MONITORING FREQUENCY REDUCTIONS

The Mill is requesting a reduction in required monitoring frequencies for AOX at Outfalls DSN002 and DSN003 and receiving stream water quality monitoring. Substantiation for these reduction requests are provided in the following sections.

### 6.1.1 AOX Monitoring Frequency

40 CFR §430.2(b)(1) allows a reduction in monitoring frequency for effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT) after five years. The Mill's AOX limits are BAT, and the Mill has been compliant with the AOX limits for more than five years. Based on the Mill's margin of compliance with the current limit and the consistency of the Mill's monitoring data, the Mill is requesting to reduce its AOX monitoring frequency from once per six months to annually. Since the Mill only has two measurements per year, IP has elected to look at the data points from most recent five years for a total of 10 data points. Table 6-1 below summarizes the statistical evaluation of the Mill's AOX data over the past five years.

Table 6-1
Outfall DSN002/003 AOX Proposed Monitoring Frequency Supporting Data

Parameter	Value
Existing Monthly Average Permit Limit (lbs/day)	1,889
Long Term Average (lbs/day) <sup>(a)</sup>	403.33
Standard Deviation (lbs/day)	85.14
Coefficient of Variation	21.11%
Ratio of Long Term Average to Monthly Average Permit Limit	21.4%
Current Sampling Frequency	Once per six months
Proposed Sampling Frequency	Annual

<sup>(</sup>a) Long term average is the average of 6-month averages from July 2018 through June 2023.



### 6.1.2 Receiving Stream Water Quality Monitoring Frequency

The Mill is currently required to conduct receiving stream water quality monitoring twice per week at eight different points along the Alabama River during the months of June through October when the dissolved oxygen (DO) measured at Alabama River Mile (ARM) 221.4 is less than 5.8 milligrams per Liter (mg/L) or the total 24-hour flow at Jones Bluff Lock and Dam is less than 6,000 cubic feet per second (cfs) for two out of three consecutive days. The Mill also has an obligation to complete daily DO monitoring if DO is less than 5.4 mg/L until DO is above the threshold. The Mill must take steps necessary to maintain DO levels at or greater than 5.0 mg/L between ARM 196 and 221.4. The need for the Mill to conduct receiving stream water quality monitoring has historically been driven by the flow at Bluff Lock and Dam flow and not the DO measured at the Mill. Further, the receiving section of the Alabama River is not listed on the 303(d) List of Impaired Waters.

IP has analyzed its historical river monitoring data from June 2018 through July 2023 to demonstrate justification for a reduction in monitoring frequency. Note that no river monitoring was required in June through October 2021. IP has analyzed a total of 625 DO measurements as presented in Table 6-2 below.

Table 6-2
Receiving Stream Water Quality Monitoring Analysis

Parameter	ARM 221.4	ARM 219	ARM 216	ARM 212	ARM 208	ARM 204	ARM 200	ARM 196
No. of Measurements	78	78	78	79	79	79	77	77
Minimum DO (mg/L)	6.0	5.9	5.3	6.1	5.4	5.7	5.5	5.0
Maximum DO (mg/L)	10.8	11.1	12.5	13.6	10.8	12.5	10.1	12.6
Average DO (mg/L)	7.7	7.8	7.5	8.0	7.8	7.9	7.4	7.5
Standard Deviation	1.0071	1.2103	1.1321	1.4052	1.2115	1.6670	1.1544	1.3681
Coefficient of Variation	13%	15%	15%	18%	16%	21%	16%	18%
% of measurements < 5.8 mg/L	0.0%	0.0%	1.3%	0.0%	3.8%	1.3%	7.8%	5.2%
% of measurements < 5.4 mg/L	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	3.9%
% of measurements < 5.0 mg/L	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



Based on the Mill's consistent compliance with the current DO limit and low standard deviation of the Mill's monitoring data, the Mill is requesting to reduce the required monitoring frequency to once per week when the requirement to conduct receiving stream water quality monitoring is triggered. The requirement to monitor river conditions, especially when the trigger is not caused by the Mill, is overly burdensome and costly to send personnel out or contract personnel out on the Alabama River for DO measurement at the eight specified points. The second DO sample within the same week typically is very similar to the first and provides little informational value for the cost incurred to complete the sampling. Appendix C provides the Mill's receiving stream water quality monitoring historical data to demonstrate that DO monitoring taken in the same week is very similar.

IP proposes to update the permit condition specifying when to conduct receiving stream water quality monitoring as follows:

If the D.O. measure at Alabama River Mile 221.4 is less than 5.8 mg/L, or the total 24-hour flow at James Bluff Lock Dam is less than 6,000 cfs for two out of three consecutive days, monitoring of the Alabama River shall be performed on a twice once per week basis.

#### 6.2 REMOVAL OF DSN0021 AND DSN0031 LIMITS

The Mill would like to confirm that Outfalls DSN0021 and DSN0031 (i.e., Tier limits) will not be present in the upcoming NPDES permit. Requirements for DSN0021 and DSN0031 applied from the effective date of the permit until the completion of the Bridge project, which included modifications to the Mill to convert the No. 15 Paper Machine to production of white top linerboard. The Bridge project was completed in late 2020; therefore, the Tier 1 requirements are no longer applicable. The Mill is currently subject to the discharge limitations and monitoring requirements of Outfalls DSN0022 and DSN0032, which became applicable upon completion of the Bridge project.

# NPDES Individual Permit Mod/Reissue (Form 187) - Supplementary Information for Industrial Facilities

Digitally signed by: AEPACS

Date: 2023.10.03 11:41:32 -05:00 Reason: Submission Data Location: State of Alabama

version 2.7

(Submission #: HPT-P6GJ-XA6VE, version 1)

### **Details**

Submission ID HPT-P6GJ-XA6VE

### Form Input

### **General Instructions**

This form should be used to submit the following permit requests for permitted Industrial Individual NPDES facilities

- -Permit Transfers
- -Permittee/Facility Name Changes
- -Minor Modifications, for example:
- > Frequency of monitoring or reporting modifications
- > Changes to interim compliance dates in a schedule of compliance, not including the final compliance date.
- > Removal of a point source outfall, provided the discharge is terminated and does not result in discharge of pollutants from other outfalls, except in accordance with permit limits.
- -Major Modifications, (Any modifications not covered by minor mod s, whether Effluent Limit changes occur or not)
- -Reissuances
- -Reissuance of a permit due to approaching expiration
- -Revocation and Reissuance of permit prior to its scheduled expiration

#### Applicable Base Fees:

- -Permit Transfers and/or Permittee/Facility Name Changes
- > \$800
- -Minor Modifications (see examples above)
- > \$3,940 (Major Sources)
- > \$3,120 (Minor Sources)
- -Major Modifications
- > \$17,990 (Major Sources)
- > \$5.615 (Minor Sources)
- -Reissuances
- > \$17,990 (Major Sources)
- > \$5,615 (Minor Sources)

For assistance, please click here to determine the permit staff responsible for the site or call (334) 271-7943

### **Processing Information**

#### **Purpose of Application**

Reissuance of Permit Due to Approaching Expiration

Please indicate if the Permittee is applying for a permit transfer and/or name change in addition to permit modification or reissuance:

None

#### **Action Type**

Reissuance

If applicable, briefly describe any planned changes at the facility that are included in this reissuance application: NONE PROVIDED

### **General Information**

SID Permit Number (if your facility currently holds an SID permit, please provide that number below): NONE PROVIDED

NPDES or General Permit Numbers (if applicable, please list all permit numbers):

AL0003018

Is this facility/site only applying for permit coverage for discharges from stormwater?

No

is a new stormwater outfall being added?

No

### **Permit Information**

#### **Permit Number**

AL0003018

#### **Current Permittee Name**

International Paper-Riverdale

#### **Permittee**

#### **Permittee Name**

International Paper-Riverdale

#### **Mailing Address**

601 County Road 78

Selma, AL 36703

• Per ADEM Admin. Code r. 335-6-6-.09 (1), a Responsible Official is defined as CEO, President, any position at a level of Vice President or higher, Owner, Partner, Managing Member (LLC), or ranking elected official. Please provide the contact information for the person meeting this definition.

Do NOT enter information for a person that is/will be a Duly Authorized Representative (DAR) (i.e. a person that has been delegated signatory permissions by a Responsible Official). A person that is a Duly Authorized Representative is NOT considered a RESPONSIBLE OFFICIAL.

#### Responsible Official

#### **Prefix**

Mr.

First Name Last Name Michael Closson

Title

Mill Manager

### **Organization Name**

International Paper - Riverdale

Phone Type Number Extension

Business 3344185236

**Email** 

Michael.Closson@ipaper.com

#### **Mailing Address**

601 County Road 78

Selma, AL 36703

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Does the Responsible Official intend to delegate signatory authority for DMRs or other compliance reports to an individual as a duly authorized representative (DAR) for this site?

No

### **Existing Permit Contacts**

Affiliation Type	Contact Information	Remove?
Engineer	Andrew Phillips, International Paper - Riverdale	NONE PROVIDED
Environmental Contact	Benjy Bruce, International Paper - Riverdale	NONE PROVIDED
Responsible Official, Notification Recipient	Bretton C. De Jong, International Paper - Riverdale	NONE PROVIDED
Facility Contact, DMR Contact	Carla Pearson, International Paper - Riverdale	NONE PROVIDED
Permittee	International Paper-Riverdale	NONE PROVIDED

### **Facility/Site Information**

#### Facility/Site Name

International Paper - Riverdale

#### Organization/Ownership Type

Corporation

#### Facility/Site Address or Location Description

601 County Rd 78 Selma, AL 36703

#### Facility/Site County

Dallas

#### **Detailed Directions to the Facility/Site**

Dallas Co.Rd. 78 East to Dallas Co.Rd. 888. Take CR 888 South for approx. 1 mile to new disturbance area.

#### **Facility Map**

Facility Location Map(8-16-23).pdf - 09/14/2023 12:25 PM

#### Comment

NONE PROVIDED

### Please refer to the link below for Lat/Long map instruction help:

Map Instruction Help

### Facility/Site Front Gate Latitude and Longitude

32.41754999999999,-86.87879400000000

Dallas County Road 888, Selma, AL

### SIC Code(s) [Please enter Primary SIC Code first followed by any additional applicable SIC Codes]

2611-Pulp Mills

2621-Paper Mills

### NAICS Code(s) [Please enter Primary NAICS Code first followed by any additional applicable NAICS Codes]

322110-Pulp Mills

322121-Paper (except Newsprint) Mills

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### Facility/Site Contact

**Prefix** 

Mrs.

First Name
Carla

Last Name
Pearson

Title

Environmental Services (inspection contact)

**Organization Name** 

International Paper - Riverdale

Phone Type Number Extension

Business 3344185236

**Email** 

Carla.Pearson@ipaper.com

**Address** 

601 County Road 78 Selma, AL 36703

### DMR Contact(s) (1 of 1)

#### **DMR Contact**

Prefix

Mrs.

First Name
Carla

Last Name
Pearson

Title

Environmental Services (inspection contact)

**Phone Type** Number Extension Business 3344185236

Business Email

il

Carla.Pearson@ipaper.com
Address

601 County Road 78 Selma, AL 36703

### Applicant Business Entity Information

### Address of Incorporation

2 Manhatarwille Road Purchase, Westchester County, NY 10557

Agent Designated by the Corporation for Purposes of Service

Name	Address
International Paper - Riverdale Mill	601 County Rd 78 Selma, AL 36703

Please provide all corporate officers

Name	Title	Address
Mark Sutton	CEO	6400 Poplar Avenue Memphis, TN 38197

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Name	Title	Address	
Newland Lesco	Executive Vice President	6400 Poplar Avenue Memphis, TN 38197	

### Does the applicant applying for coverage have a Parent Corporation?

Yes

**Parent Corporation of Applicant** 

Name	Address		
International Paper	6400 Poplar Avenue Memphis, TN 38197		

Does the applicant applying for coverage have Subsidiary Corporations?

### **Enforcement History**

Has the applicant been issued any Notices of Violation, Orders (Consent or Administrative/Unilateral), or Judicial Actions (Complaint, Settlement Agreement, Consent Decree, or Court Order) concerning water pollution or other permit violations within the State of Alabama in the past five years?

Yes

Identify all Notices of Violation, Orders (Consent or Administrative/Unilateral), or Judicial Actions (Complaint, Settlement Agreement, Consent Decree, or Court Order) concerning water pollution or other permit violations, if any, against the Applicant within the State of Alabama in the past five years.

Facility/Site Name	Permit Number, If Applicable	Type of Action	Date of Action	
International Paper - Riverdale Mill	104-003	Consent Order	7/27/2023	
International Paper - Riverdale Mill	104-003	Consent Order	09/29/2022	
International Paper - Riverdale Mill	104-003	Consent Order	04/07/2022	

### **Business Activity**

A facility with processes inclusive in the business areas shown below may be covered by Environmental Protection Agency (EPA) categorical effluent guideline standards. These facilities are termed categorical users. If unsure, please call the Industrial Section at (334) 271-7943 to discuss or use the link below to contact the Permit Engineer for the county the facility is/will be located in.

Industrial Section Assignment Map

If your facility conducts or will be conducting any of the processes listed below (regardless of whether they generate wastewater, waste sludge, or hazardous wastes), please check the category of business activity: Pulp, Paper, and Fiberboard Manufacturing

Give a brief description of all operations at this facility including primary products or services:

International Paper owns and operates a Kraft pulp and paper mill in Selma, AL which produces white top linerboard or bleached printing paper. The typical activities associated with pulp and paper manufacturing are performed at this facility.

### Water Supply

Water Sources (check all that apply):

Private Well Surface Water

Well ID	Private Well in Million Gallons per Day (MGD)			
Well 2	0.65			
Well 3	2.16			
	Sum: 2.81			

Operator of Surface Intake	Million Gallons per Day (MGD)		
International Paper - Riverdale	38.4		
	Sum: 38.4		

### Cooling Water Intake Structure Information

Does the provider of your source water operate a surface water intake? Yes

Name of Provider	Location of Provider	Latitude	Longitude	
International Paper - Riverdale Mill	601 County Rd 78, Selma AL	32.41754999999999	-86.87879400000000	

Is the provider a public water system (defined as a system which provides water to the public for human consumption or which provides only treated water, not raw water)?

No

Is any water withdrawn from the source water used for cooling?

Using the average monthly measurements over any 12-month period, approximately what percentage of water withdrawn is used exclusively for cooling purposes?

Does the cooling water consist of treated effluent that would otherwise be discharged?

Is the cooling water used in a once-through cooling system?

Is the cooling water used in a closed cycle cooling system?
Yes

When was the intake installed?

What is the maximum intake volume (maximum pumping capacity in gallons per day)?

What is the average intake volume (average intake pump rate in gallons per day average in any 30-day period)? 38.4

What is the actual intake flow (AIF) as defined in 40 CFR �125.92(a) (MGD)?

How is the intake operated? Continuously

What is the mesh size of the screen on your intake (in inches)? 0.110

What is the intake screen flow-through area (in square feet)? 90.47

What is the through-screen design intake flow velocity (in ft/sec)? 0.735

What is the through-screen actual velocity (in ft/sec)? 0.543

What is the mechanism for cleaning the screen (e.g., does it rotate for cleaning)? rotation

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Do you have any additional fish detraction technology on your intake?

Yes

Please describe the fish detraction technology:

Rotating screen

Have there been any studies to determine the impact of the intake on aquatic organisms?

Nο

Attach a site map showing the location of the water intake in relation to the facility, shoreline, water depth, etc.

EPA Form 1 - Figure 2 - Riverdale Outfall and Well Locations (9-19-23).pdf - 10/03/2023 08:56 AM

Comment

NONE PROVIDED

### Outfalls (1 of 4)

001

Please click below if this discharge no longer exists or is no longer required:

NONE PROVIDED

**Outfall Identifier** 

001

**Receiving Water** 

Alabama River

Does the discharge enter the named receiving water via an unnamed tributary?

NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:

Process Water commingled with Stormwater

**Estimated Average Daily Flow (MGD)** 

0

Monitoring/Sampling Point Location

32,42710000000000, -86.88430000000000

### Outfalls (2 of 4)

002

Please click below if this discharge no longer exists or is no longer required:

NONE PROVIDED

**Outfall Identifier** 

002

**Receiving Water** 

Alabama River

Does the discharge enter the named receiving water via an unnamed tributary?

NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:

ProcessWater commingled with Stormwater

Estimated Average Daily Flow (MGD)

37.4

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### Monitoring/Sampling Point Location

32.41388900000000, -86.84722200000000

### Outfalls (3 of 4)

003

Please click below if this discharge no longer exists or is no longer required:

NONE PROVIDED

**Outfall Identifier** 

003

**Receiving Water** 

Alabama River

Does the discharge enter the named receiving water via an unnamed tributary?

NONE PROVIDED

Indicate if either of the following characteristics apply to this discharge:

Process Water commingled with Stormwater

**Estimated Average Daily Flow (MGD)** 

37.4

Monitoring/Sampling Point Location

32,41388900000000, -86,84722200000000

### Outfalls (4 of 4)

005

Please click below if this discharge no longer exists or is no longer required:

NONE PROVIDED

**Outfall Identifier** 

005

**Receiving Water** 

Alabama River

Does the discharge enter the named receiving water via an unnamed tributary?

**Unnamed Tributary** 

Indicate if either of the following characteristics apply to this discharge:

None apply

Estimated Average Daily Flow (MGD)

0.22

Monitoring/Sampling Point Location

32.42083300000000, -86.87388900000001

### Stormwater Outfalls (1 of 2)

004

### Please click below if this discharge no longer exists or is no longer required:

NONE PROVIDED

#### **Outfall Identifier**

004

### **Receiving Water**

Alabama River

### Does the discharge enter the named receiving water via an unnamed tributary?

Unnamed Tributary

### Indicate if either of the following characteristics apply to this discharge:

Stormwater only (no comingled process waste water excluding air conditioner condensate and fire testing waters)

### Monitoring/Sampling Point Location

32.42305600000000, -86.87527799999999

### Stormwater Outfalls (2 of 2)

006

### Please click below if this discharge no longer exists or is no longer required:

NONE PROVIDED

#### **Outfall Identifier**

006

### **Receiving Water**

Alabama River

### Does the discharge enter the named receiving water via an unnamed tributary?

Unnamed Tributary

#### Indicate if either of the following characteristics apply to this discharge:

Stormwater only (no comingled process waste water excluding air conditioner condensate and fire testing waters)

### Monitoring/Sampling Point Location

32.42972200000000, -86.87083300000001

### Process Flow Schematic with Wastewater Treatment(s), If Applicable

For an example of a process flow diagram, please use the link below.

Figure 1: Example of Process Flow Schematic

#### **Process Flow Schematic**

Wastewater Collection and Treatment System PFD (9-22-23),pdf - 10/03/2023 08:56 AM

#### Comment

NONE PROVIDED

### **Anti-Degradation Evaluation**

Is this a new or increased discharge that began after April 3, 1991?

No

### Additional Information

### Do you share an outfall with another facility?

No

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Indicate if automatic sampling equipment or continuous wastewater flow metering equipment is being operated at

this facility:

Current	Yes/No
Continuous Wastewater Flow Metering Equipment	Yes
Automatic Sampling Equipment	Yes

Indicate if installation automatic sampling equipment or continuous wastewater flow metering equipment planned at this facility:

Planned	Yes/No
Continuous Wastewater Flow Metering Equipment	N/A
Automatic Sampling Equipment	N/A

### Please describe the equipment below:

Automatic Sampler - ISCO Model 3710

Continuous Wastewater Flow Metering Equipment - Integrator flow meter/Honeywell Mini Trend

Please attach the process schematic with sampling equipment locations.

EPA Form 1 - Figure 2 - Riverdale Outfall and Well Locations (9-19-23).pdf - 10/03/2023 08:57 AM

Comment

Automatic Sampler and Flow metering equipment is located prior to discharge of DSN002/003.

Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics (Consider production processes as well as air or water pollution treatment processes that may affect the discharge.)?

No

Do you use biocides, corrosion inhibitors, or chemical additives in your cooling or blowdown water?

The applicant must provide a list of the following information for each biocide or chemical:

- (1) Name and general composition of biocide or chemical (if composition is not provided on MSDS sheet)
- (2) 48-hour or 96-hour LC50 data for organisms representative of the biota of the waterway into which the discharge will ultimately reach. For freshwater, the fathead minnow (Pimephales promelas) and cladoceran (Ceriodaphnia dubia) are the test organisms. For salt water, the mysid shrimp and the sheepshead minnow or inland silverside are the test organisms. Other acceptable aquatic organisms may be allowed by the Department if sufficient information is provided. If the MSDS sheet does not provide data for the organisms specified above, the facility must provide the data unless the Department grants approval for an alternate organism.
- (3) Quantities to be used
- (4) Frequencies of use
- (5) Maximum proposed discharge concentrations
- (6) EPA registration of number, if applicable and is not provided on the MSDS sheet.

#### **List of Biocides**

List of Diocides	Please list biocides below:	
Nalco Towerbrome 991		

#### **Biocide/Corrosion Inhibitor Summary Sheet**

Form 187 - Section C Item 4 (9-18-23),pdf - 10/03/2023 08:58 AM

Comment

NONE PROVIDED

### Safety Data Sheets (SDS)

SDS combined.pdf - 09/14/2023 04:07 PM Comment

NONE PROVIDED

### **Treatment**

Is any form of wastewater treatment (see list below) practiced at this facility?

Yes

### Treatment devices or processes used or proposed for treating wastewater or sludge (check as many as appropriate).

Sedimentation

Neutralization, pH correction

Other: mixing, aerated lagoons, stabilization ponds.

Screen

Filtration

Is any form of wastewater treatment (or changes to an existing wastewater treatment) planned for this facility within the next three years?

No

### **Facility Operational Characteristics**

### Indicate whether the facility discharge is:

Continuous through the year

#### Comments:

NONE PROVIDED

### Non-Discharged Wastes

Are any waste liquids or sludges generated and not disposed of in the sanitary sewer system?

Does any outside firm remove any of the above checked wastes?

No

### **EPA Application Forms**

All Applicants must submit certain EPA permit application forms. More than one application form may be required.

Form 1 - General Information Form required for all applications

Form 2C - Should be submitted for facilities with existing discharge(s) of process wastewater.

Form 2D - Should be submitted for facilities that have not yet commenced discharge(s) of process wastewater.

Form 2E - Should be submitted for facilities who discharge non-process wastewater, such as non-contact cooling water or boiler blowdown.

Form 2F - Should be submitted for all discharges of storm water associated with an industrial activity. The EPA application forms are found on the Department swebsite here.

#### **EPA Form 1**

U.S. EPA Form 1 (9-28-23).pdf - 10/03/2023 08:59 AM

Comment

NONE PROVIDED

### Additional EPA Forms (EPA Form 2C, 2D, 2E and/or 2F)

U.S. EPA Form 2C (10-2-23),pdf - 10/03/2023 08:59 AM

Comment

NONE PROVIDED

#### Other attachments (as needed)

U.S. EPA Form 2F (10-2-23),pdf - 10/03/2023 08:59 AM

Comment

NONE PROVIDED

### **Additional Attachments**

10/3/2023 11:41:32 AM Page 11 of 13

### Please attach any additional information as needed.

FINAL IP Riverdale NPDES Renewal (10-2-2023).pdf - 10/03/2023 09:00 AM Comment

Complete Application

### **Application Preparer**

### **Application Preparer**

**Prefix** 

Mrs.

**First Name** 

**Last Name** 

Susie

Bowden

Title

Managing Consultant

**Organization Name** 

ALL4 LLC

**Phone Type** 

Number

Extension

Business

334-703-9142

**Email** 

sbowden@all4inc.com

**Address** 

[NO STREET ADDRESS SPECIFIED]

[NO CITY SPECIFIED], [NO STATE SPECIFIED] [NO ZIP CODE SPECIFIED]

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### Agreements and Signature(s)

#### **SUBMISSION AGREEMENTS**

- ☐ I am the owner of the account used to perform the electronic submission and signature.
- □ I have the authority to submit the data on behalf of the facility I am representing.
- I agree that providing the account credentials to sign the submission document constitutes an electronic signature equivalent to my written signature.
- I have reviewed the electronic form being submitted in its entirety, and agree to the validity and accuracy of the information contained within it to the best of my knowledge.

"I certify under penalty of lawthat 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."

"I further certify under penalty of lawthat all analyses reported as less than detectable in this application or attachments thereto were performed using the EPA approved test method having the lowest detection limit for the substance tested."

#### NOTE: 335-6-5-.14 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

The application shall be signed by a responsible official, a request for variance from categorical pretreatment standards, and a category determination request shall be signed by a responsible official, as indicated below.

- In the case of a corporation, by a principal executive officer of at least the level of vice president;
- . In the case of a partnership, by a general partner;
- In the case of a sole proprietorship, by the proprietor, or
- In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official

Signed

Michael Closson on 10/03/2023 at 11:36 AM

# APPENDIX A - APPLICATION FORMS

NPDES Permit Number **EPA Identification Number** Facility Name Form Approved 03/05/19 OMB No. 2040-0004 ALD000645457 AL0003018 International Paper - Riverdale U.S. Environmental Protection Agency Form Application for NPDES Permit to Discharge Wastewater **SEPA NPDES GENERAL INFORMATION** SECTION 1. ACTIVITIES REQUIRING AN NPDES PERMIT (40 CFR 122.21(f) and (f)(1)) Applicants Not Required to Submit Form 1 is the facility a new or existing publicly owned Is the facility a new or existing treatment works 1.1.1 1.1.2 treatment works? treating domestic sewage? If yes, STOP. Do NOT complete If yes, STOP. Do NOT No No  $\Box$ 1 Form 1, Complete Form 2A. complete Form 1. Complete Form 2S. 1.2 Applicants Required to Submit Form 1 1.2.1 is the facility a concentrated animal feeding 1.2.2 Is the facility an existing manufacturing. Activities Requiring an NPDES Permit operation or a concentrated aquatic animal commercial, mining, or silvicultural facility that is production facility? currently discharging process wastewater? Yes → Complete Form 1 Yes → Complete Form V No □ No and Form 2B. 1 and Form 2C. 1.2.3 Is the facility a **new** manufacturing, commercial, 1.2.4 Is the facility a new or existing manufacturing. mining, or silvicultural facility that has not yet commercial, mining, or silvicultural facility that commenced to discharge? discharges only nonprocess wastewater? Yes → Complete Form 1 Yes → Complete Form No ✓ No 1 and Form 2D. 1 and Form 2E Is the facility a new or existing facility whose 1.2.5 discharge is composed entirely of stormwater associated with industrial activity or whose discharge is composed of both stormwater and non-stormwater? Yes → Complete Form 1 No and Form 2F unless exempted by 40 CFR 122.26(b)(14)(x) or (b)(15). SECTION 2. NAME, MAILING ADDRESS, AND LOCATION (40 CFR 122.21(f)(2)) **Facility Name** International Paper - Riverdale Mill Vame, Mailing Address, and Location 2.2 **EPA Identification Number** ALD000645457 2.3 **Facility Contact** Phone number Name (first and last) Title Carla Pearson **Environmental Specialist** (334) 418-5236 Email address Carla.Pearson@ipaper.com 2.4 **Facility Mailing Address** Street or P.O. box 601 County Rd 78 ZIP code State City or town

AL

36703

Selma

EP	A Identifica	ation Number	NPDES F	Permit Number	Facility Name	Form Approved 03/05/	
	ALD000	645457	ALC	003018	International Paper - River	dale OMB No. 2040-00	
ed ed	2.5	<b>Facility Locatio</b>	n				
Name, Mailing Address, and Location Continued		Street, route number, or other specific identifier 601 County Rd 78					
		County name	County name County code (if known)				
		Dallas 27		-	( ,		
Lo,		City or town		State	95 - 95 W. Ko.	ZIP code	
Nar		Selma				36703	
SECTIO	N 3. SIC	AND NAICS COD	ES (40 CFR	22.21(f)(3))			
	3.1	SIC Co		Description	(optional)		
		2621		Paper Mills			
		2611		Pulp Mills			
Codes							
SIC and NAICS Codes							
N	3.2	NAICS C	ode(s)	Description	(optional)		
Car		322120		Paper Mills			
ळ		322110		Pulp Mills			
SECTIO		ERATOR INFORM		FR 122.21(f)(4))			
	4.1	Name of Operat	tor				
/		International Pap	er				
tion	4.2	Is the name you listed in Item 4.1 also the owner?					
Operator Information		☑ Yes ☐ N	Jo.				
Info	4.3	Operator Status					
ator	7.0	☐ Public—fede		☐ Public—state	□ Othe	er public (specify)	
pera		☑ Private		Other (specif		public (specify)	
0	4.4	Phone Number		Other (specin	<u> </u>		
	7,7	(334) 872-3481					
	4.5	<u> </u>					
ion	4.5	Operator Address Street or P.O. Box					
mat		601 County Rd 78					
nfor		City or town		State		ZIP code	
Operator Information Continued		Selma		AL		36703	
eral		Email address of	foperator				
8		Carla.Pearson@ipaper.com					
SECTIO	N 5. INC	IAN LAND (40 CF	R 122.21(f)(5	))			
	5.1	Is the facility loca					
Indian	0.11	Yes 🗸					
			140				

EP	A Identifica	tion Number NPDES Permit N			Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
	ALD0006					ale OMB No. 2040-0004
SECTIO		STING ENVIRONMENTAL PERMITS		THE REAL PROPERTY.		
Ital	6.1	Existing Environmental Permits (c				
Existing Environmental Permits		✓ NPDES (discharges to surface water)	<b>☑</b> RCRA	(hazaro	ous wastes)	☐ UIC (underground injection of fluids)
		AL0003018	ALD000645457		57	ilulus)
ting Enviro Permits		PSD (air emissions)	☐ Nonatta	ainment	program (CAA)	NESHAPs (CAA)
		Ocean dumping (MPRSA)	Dredge or fill (CWA Section 404)		CWA Section 404)	Other (specify) See Attachment
SECTIO		P (40 CFR 122.21(f)(7))				
Q	7.1	Have you attached a topographic ma specific requirements.)	p containing	all requ	ired information to this	application? (See instructions for
Мар				10		,
			DESCRIPTION OF THE PERSON OF	(See re	quirements in Form 2B	.)
SECTIO	8.1	TURE OF BUSINESS (40 CFR 122.21)  Describe the nature of your business				
	0.1			lp and i	paper mill in Selma. At	which produces white top linerboard
9		and bleached printing paper. The typ				
Nature of Business		this facility.				
f Bus						
lre o						
Natu						
SECTIO		DLING WATER INTAKE STRUCTURE		22.21(	)(9))	
	9.1	Does your facility use cooling water?				
er		✓ Yes  No → SKIP to Item				
ling Water Structures	9.2	Identify the source of cooling water. ( 40 CFR 125, Subparts I and J may ha NPDES permitting authority to detern	ave additiona	al applic	ation requirements at	40 CFR 122.21(r). Consult with your
Coolir Intake S		Water intake structure located off ba	nk of the Mu	lberry	Creek directly off of Ala	bama River. Less than 10% of water
_		withdrawn is used exclusively for coo be found in ADEM Form 187.	ling purpose	s. Addit	ional information rega	rding the water intake structure can
CECTIO	N 40 VA	RIANCE REQUESTS (40 CFR 122.21	(f)(10))	-	-	
SECTIO	10.1	Do you intend to request or renew on		the var	iances authorized at 40	CFR 122.21(m)? (Check all that
ests		apply. Consult with your NPDES perr when.)				
e Requ		Fundamentally different factors Section 301(n))	s (CWA		Water quality related 302(b)(2))	effluent limitations (CWA Section
Variance Requests		Non-conventional pollutants (C Section 301(c) and (g))	CWA		Thermal discharges (	CWA Section 316(a))
		✓ Not applicable				

EPA Identification Number NPDES Permit Number Facility Name Form Approved 03/05/19 OMB No. 2040-0004 ALD000645457 AL0003018 International Paper - Riverdale SECTION 11. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d)) In Column 1 below, mark the sections of Form 1 that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments. Column 1 Column 2  $\overline{\mathbf{V}}$ Section 1: Activities Requiring an NPDES Permit w/ attachments  $\checkmark$ Section 2: Name, Mailing Address, and Location w/ attachments  $\overline{\mathbf{V}}$ Section 3: SIC Codes w/ attachments  $\sqrt{\phantom{a}}$ Section 4: Operator Information w/ attachments  $\checkmark$ Section 5: Indian Land w/ attachments 1  $\checkmark$ Section 6: Existing Environmental Permits w/ attachments Checklist and Certification Statement w/ topographic 1 Section 7: Map w/ additional attachments map  $\overline{\mathbf{V}}$ Section 8: Nature of Business w/ attachments  $\checkmark$ Section 9: Cooling Water Intake Structures w/ attachments Section 10: Variance Requests w/ attachments  $\overline{\mathbf{V}}$ Section 11: Checklist and Certification Statement w/ attachments 11.2 **Certification Statement** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision

in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information,

Official title

Mill Manager

Date signed

including the possibility of fine and imprisonment for knowing violations.

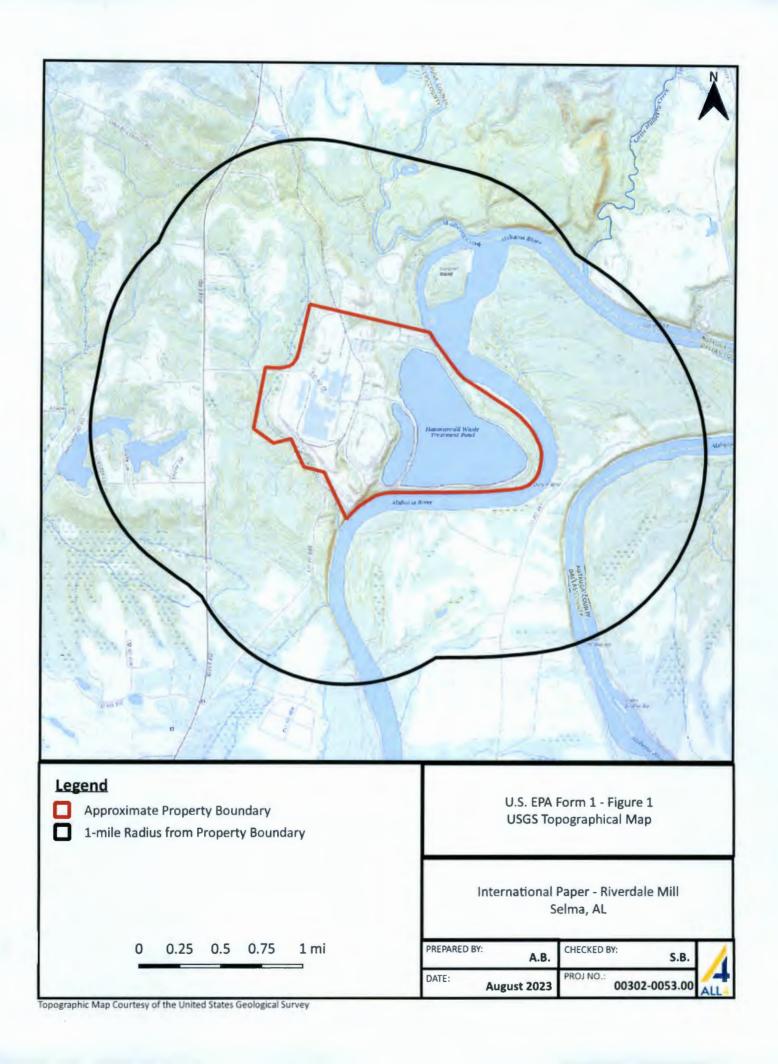
Name (print or type first and last name)

Michael Closson

Signature

# U.S. EPA Form 1, Item 6.1 Existing Environmental Permits International Paper - Riverdale, AL Mill

Environmental Program	Permit Number		
NPDES	AL0003018		
RCRA	ALD000645457		
TVOP	104-0003		
DCD (Air Emissions)	104-0003-Z029		
PSD (Air Emissions)	104-0003-Z014		
Drinking Water	2016-799		
Radioactive Materials License	581		
Water Use Certificate - ADECA	46		
COE/ADEM Dredge	SAM-2005-01655-ADP		
Solid Waste Disposal Facility	24-06		
Solid Waste Scrap Tire Facility	SC20000-006298		





### Legend

- Approximate Property Boundary
- **Outfall Location**
- River Intake Structure
- Well Location
- Hazardous Waste Storage (temporary)
- Flow Arrows

0.25 0.5 0.75 1 mi

U.S. EPA Form 1 - Figure 2 Outfall, Intake Structure, Hazardous Waste Storage, and Well Locations

> International Paper - Riverdale Mill Selma, AL

DRAWN BY: CHECKED BY: A.B. PROJ NO .: DATE: 00302-0053.00 July 2023

EPA Identification Number ALD000645457

NPDES Permit Number AL0003018

Facility Name International Paper - Riverdale Form Approved 03/05/19 OMB No. 2040-0004



## U.S. Environmental Protection Agency

2C NPDES	9	EPA	Application for NPDES Permit to Discharge Wastewater  EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURE OPERATIONS										
SECTION	1. OUT		TION (40 CFR 122.21(g)(1))										
	1.1		rmation on each of the facility's o										
Outfall Location		Outfall Number		Latitud	le		Longitude						
		DSN002	Alabama River	32°	24'	50″ N	86	5° 50′	50"	W			
		DSN003	Alabama River	32°	24'	50" N	80	5° 50′	50"	W			
				0	,	"		• ,	"				
SECTION			(40 CFR 122.21(g)(2))				1						
Line Drawing	2.1	Have you attached a line drawing to this application that shows the water flow through your facility with a water balance? (See instructions for drawing requirements. See Exhibit 2C-1 at end of instructions for example.)											
Line		✓ Yes											
SECTION	N 3. AVE	RAGE FLOW	S AND TREATMENT (40 CFR 1	122.21(a)(3)	))								
	3.1	For each outfall identified under Item 1.1, provide average flow and treatment information. Add additional sheets if											
		necessary.											
		**Outfall Number** 002/003 Operations Contributing to Flow											
			Operation		Average Flow								
			See Attachment	mgo									
tment										mga			
Treal										mga			
s and										mga			
Flow				nits									
Average Flows and Treatment		(include	<b>Description</b> size, flow rate through each trea retention time, etc.)	tment unit,		Code fro		Final Dispo Liquid Was by Di	sal of S tes Othe scharge	r Than			
			See Attachment							,			

EPA Identification Number NPDES Permit Number Facility Name Form Approved 03/05/19 OMB No. 2040-0004 ALD000645457 AL0003018 International Paper - Riverdale 3.1 \*\*Outfall Number\*\* cont. **Operations Contributing to Flow** Operation Average Flow mgd mgd mqd mgd **Treatment Units** Final Disposal of Solid or Description Code from (include size, flow rate through each treatment unit, **Liquid Wastes Other Than** Table 2C-1 retention time, etc.) by Discharge Average Flows and Treatment Continued \*\*Outfall Number\*\* **Operations Contributing to Flow** Operation **Average Flow** mgd mqd mgd mgd **Treatment Units** Final Disposal of Solid or Description Code from (include size, flow rate through each treatment unit, **Liquid Wastes Other Than** Table 2C-1 by Discharge retention time, etc.) 3.2 Are you applying for an NPDES permit to operate a privately owned treatment works? ✓ No → SKIP to Section 4. Have you attached a list that identifies each user of the treatment works? 3.3 No

EPA Identification Number		NPDES Permit Number Facility Name				proved 03/05/19							
A	ALD0006	45457	AL0003	018 II	nternational Paper - Ri	verdale	OMB No. 2040-0004						
SECTIO	N 4. INT	ERMITTENT F	LOWS (40 CFR 122.	21(g)(4))									
	4.1	Except for s	xcept for storm runoff, leaks, or spills, are any discharges described in Sections 1 and 3 intermittent or seasonal?										
		☐ Yes											
	4.2	Provide info	mation on intermitten	fall. Attach additi	I. Attach additional pages, if necessary.								
		Outfall	Operation	Free	quency	Flow	Rate	<b>Duration</b> days					
		Number	(list)	Average Days/Week	Average Months/Year	Long-Term Average	Maximum Daily						
				days/week	months/year	mgd	mgd						
Flows				days/week	months/year	mgd	mgd	days					
ittent				days/week	months/year	mgd	mgd	days					
Intermittent Flows				days/week	months/year	mgd	mgd	days					
-				days/week	months/year	mgd	mgd	days					
				days/week	months/year	mgd	mgd	days					
				days/week	months/year	mgd	mgd	days					
				days/week	months/year	mgd	mgd	days					
				days/week	months/year	mgd	mgd	days					
SECTION	V 5. PRC	DUCTION (40	CFR 122.21(g)(5))										
	5.1	Do any efflu	ent limitation guideline	es (ELGs) promulgat	ed by EPA under Sect	tion 304 of the CV	NA apply to you	r facility?					
		✓ Yes			□ No → S	SKIP to Section 6							
S	5.2	Provide the following information on applicable ELGs.											
E		ELC	G Category		ELG Subcategory		Regulatory	Citation					
Applicable ELGs		40	O CFR 430	Subpart B: Ble	ft and Soda	oda 40 CFR 430.20							
Appl		40	) CFR 430	Subpart J: Seco	Subcategory	ubcategory 40 CFR 430							
	5.3	Are any of the applicable ELGs expressed in terms of production (or other measure of operation)?											
SIIS		✓ Yes   No → SKIP to Section 6.											
tatic	5.4	Provide an a	ctual measure of dail	y production express	sed in terms and units	of applicable ELO	Gs.						
Production-Based Limitations		Outfall Number	Opera	Quantity p	or Day	Unit of leasure							
-Base				See Attachment									
luction													
Prod			1. W 4. S.		-								

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ION 6. IM	PROVEMENTS	(40 CFR 122.21(g)(6))													
6.1	Are you pres	sently required by any federal, so or operating wastewater treatme scharges described in this applic	ent equipment or	practices	neet an implen or any other e	nvironmental progra	or construction of coulo								
6.2	Briefly identi	fy each applicable project in the	table below.				·								
	Affected				C() (	Final Comp	liance Date								
	Brief ident	ification and Description of Project	Outfalls (list outfall number)	Source(s) of Discharge		Required	Projecte								
6.3		ached sheets describing any accet your discharges) that you no	w have underwa				ental projects								
	he instructions to determine the pollutants and parameters you are required to monitor and, in turn, the tables you must lete. Not all applicants need to complete each table.														
	A. Conventional and Non-Conventional Pollutants														
7.1	Are you requesting a waiver from your NPDES permitting authority for one or more of the Table A pollutants for any c your outfalls?														
	☐ Yes ☑ No → SKIP to Item 7.3.														
7.2	If yes, indicate the applicable outfalls below. Attach waiver request and other required information to the application														
	Outfall Number Outfall Number Outfall Number														
7.3	requested and attached the results to this application package?														
	Yes No; a waiver has been requested from my NPDES permitting authority for all pollutants at all outfalls.														
	B. Toxic Metals, Cyanide, Total Phenols, and Organic Toxic Pollutants														
7.4	Do any of the facility's processes that contribute wastewater fall into one or more of the primary industry categories listed in Exhibit 2C-3? (See end of instructions for exhibit.)														
7.5	✓ Yes	em 7.8.	- DO												
7.5	Have you ch		l toxic metals, cy	yanide, an	in Section 1 of Tabl	e b r									
7.6		ecked "Testing Required" for all		☐ No		List the applicable primary industry categories and check the boxes indicating the required GC/MS fraction(s) identifies									
	List the appli	cable primary industry categoric	es and check the			quired GC/MS fraction	on(s) identifie								
		cable primary industry categoric	es and check th		dicating the red	GC/MS Fraction(s)									
	List the appli	cable primary industry categoric	es and check th		dicating the re- Required (Check										
	List the appli	cable primary industry categoric -3.  Primary Industry Category	es and check th	e boxes in	Required (Check	GC/MS Fraction(s) applicable boxes.)									

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A	ALD0006	45457	AL0003018	OMB No. 2040-0004							
	7.7		ecked "Testing Required" for all requions checked in Item 7.6?	red pollutants i	n Sections 2 through	5 of Table B for each of the					
	7.8		ecked "Believed Present" or "Believed	d Abcont" for a		estions 1 through 5 of Table D					
	7.0		g is not required?	a Absent for a	i poliularits listed ili S	ections i through 5 of Table B					
		✓ Yes	,		No						
	7.9	Have you provided (1) quantitative data for those Section 1, Table B, pollutants for which you have indicated testing is required or (2) quantitative data or other required information for those Section 1, Table B, pollutants that you have indicated are "Believed Present" in your discharge?  Yes  No									
	7.10	Does the app	olicant qualify for a small business ex	emption under	the criteria specified in	n the instructions?					
pa		Yes → Note that you qualify at the top of Table B, then SKIP to Item 7.12.									
Effluent and Intake Characteristics Continued	7.11	determined to	ovided (1) quantitative data for those esting is required or (2) quantitative du have indicated are "Believed Prese	ata or an expla	nation for those Secti						
teri	Table (	C. Certain Con	ventional and Non-Conventional P	ollutants							
Charac	7.12		licated whether pollutants are "Believ		"Believed Absent" for	all pollutants listed on Table C					
ke (		✓ Yes			No						
nt and Inta	7.13	Have you completed Table C by providing (1) quantitative data for those pollutants that are limited either directly or indirectly in an ELG and/or (2) quantitative data or an explanation for those pollutants for which you have indicated "Believed Present"?									
<u>le</u>		✓ Yes			No						
=		ble D. Certain Hazardous Substances and Asbestos									
	7.14	all outfalls?	licated whether pollutants are "Believ	ed Present" or		all pollutants listed in Table D for					
		✓ Yes		Li	No						
	7.15	Have you completed Table D by (1) describing the reasons the applicable pollutants are expected to be discharged and (2) by providing quantitative data, if available?									
		✓ Yes			No						
		E. 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (2,3,7,8-TCDD)									
	7.16	Does the facility use or manufacture one or more of the 2,3,7,8-TCDD congeners listed in the instructions, or do you know or have reason to believe that TCDD is or may be present in the effluent?									
		1000	Complete Table E.		No → SKIP to Sec	tion 8.					
y Va	7.17	Have you con	mpleted Table E by reporting qualitati	ive data for TC	DD? No						
SECTION	N 8. USE	D OR MANUF	<b>ACTURED TOXICS (40 CFR 122.21</b>	(g)(9))							
.eq	8.1	Is any pollutant listed in Table B a substance or a component of a substance used or manufactured at your facility as an intermediate or final product or byproduct?									
- GE		Yes		<b>V</b>	No → SKIP to Se	ction 9.					
ufa	8.2	List the pollut	tants below.								
r Manufa Toxics		1.	4.		7.						
Used or Manufactured Toxics		2.	5.		8.						
Š		3.	6.		9.						

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_							- Riverdale	20 11/20			
	9.1 Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity within the last three years on (1) any of your discharges or (2) on a receiving water in relation to your ✓ Yes   No → SKIP to Section 10.										
Test	9.2	Identify the to	Identify the tests and their purposes below.								
Biological Toxicity Tests		Test		Purpose of Test(s)		Submitted to NPDES Permitting Authority?		Date Submitted			
gical To		Acute Toxicity Tests		Required by NPDES Permit		✓ Yes	□ No	01/18/2023			
Biolo		Acute Toxicity Tests		Required by NPDES Permit		✓ Yes		01/25/2022			
		Acute Toxicity Tests		Required by NPDES Permit		✓ Yes	□ No	01/28/2021			
CTIO	N 10. CC	NTRACT ANA	LYSES (40	CFR 122.21(g)(12))							
10	10.1	Were any of	the analyses	reported in Section 7 pe	erformed by	a contract	laboratory or con	sulting firm?			
120		✓ Yes				☐ No	→ SKIP to Section	on 11.			
	10.2	Provide information for each contract laboratory or consulting firm below.									
				Laboratory Number			ory Number 2	Laboratory Number			
		Name of laboratory/firm		Eurofins Pensacola							
Contract Analyses		Laboratory address		3355 McLemore Drive							
Contrac		Phone number	er	(850) 474-1001		00 s (					
		Pollutant(s) a	nalyzed	Form 2C Table A throug Table C	gh						
CTION	N 11. AD	DITIONAL INF	ORMATION	I (40 CFR 122.21(g)(13))							
	11.1	Has the NPDES permitting authority requested additional information?									
E		✓ Yes No → SKIP to Section 12.									
natio	11.2	List the inform	nation reque	ested and attach it to this	application	,					
al Inform		1. ADEM For				4.					
Additional Information		2.				5.					
A		3.			6.						

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CTION 12. C	HECKL	IST AND	CERTIFICATION STATE	MENT (	40 CFR 122.22(a) and (d))		
12.1	For	each secti	on, specify in Column 2 a	ny attac	2C that you have completed and an hments that you are enclosing to a all sections or provide attachments	lert the	tting with your application, permitting authority. Note
	The same		Column 1		Colur	nn 2	
	<b>V</b>	Section '	: Outfall Location		w/ attachments		
	V	Section 2	2: Line Drawing		w/ line drawing	<b>V</b>	w/ additional attachments
	V	Section : Treatme	8: Average Flows and nt		w/ attachments		w/ list of each user of privately owned treatment works
	V	Section 4	: Intermittent Flows		w/ attachments		
	V	Section 5	5: Production		w/ attachments		
	<b>V</b>	Section (	6: Improvements	V	w/ attachments		w/ optional additional sheets describing any additional pollution control plans
					w/ request for a waiver and supporting information		w/ explanation for identical outfalls
					w/ small business exemption request		w/ other attachments
	V	Section 7 Characte	: Effluent and Intake ristics	<b>V</b>	w/ Table A	<b>V</b>	w/ Table B
				<b>V</b>	w/ Table C	<b>V</b>	w/ Table D
				<b>V</b>	w/ Table E	<b>V</b>	w/ analytical results as an attachment
a di	V	Section 8 Toxics	3: Used or Manufactured		w/ attachments		
Checklist and Certification Statement	V	Section 9	: Biological Toxicity		w/ attachments		
5	V	Section 1	0: Contract Analyses		w/ attachments		
	Ø	Section 1	1: Additional Information		w/ attachments		
	<b>7</b>		2: Checklist and ion Statement		w/ attachments		

### 12.2 Certification Statement

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

Name (print or type first and last name)	Official title	
Michael Closson	Mill Manager	
Signature	Date signed	

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						Eff	luent		Intal (Option	
	Pollutant	Waiver Requested (if applicable)	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
	Check here if you have applied	to your NPDE	S permitting author	rity for a wai	ver for all of the p	ollutants listed on	this table for the not	ed outfall.		
1	Biochemical oxygen demand		Concentration	mg/L	51.89	43.75	44.23	312		
1.	(BOD <sub>5</sub> )	ы	Mass	lb/day	34,643	16,027	18,453	312		
2	Chemical oxygen demand		Concentration	mg/L	180			1		
2.	(COD)	Ш	Mass	lb/day	59,937			1		
2	Total associa corbon (TOC)		Concentration	mg/L	100			1		
3.	Total organic carbon (TOC)		Mass	lb/day	33,298			1		
4	Table and deside (TCC)		Concentration	mg/L	60.31	57.75	63.60	312		
4.	Total suspended solids (TSS)		Mass	lb/day	40,263	21,156	26,533	312		
-	Ammania (a.a. Al)		Concentration	mg/L	2.96		1.78	24		
5.	Ammonia (as N)		Mass	lb/day	1,976		742.59	24		
6.	Flow		Rate	MGD	80	43.90	49.99	730		
_	Temperature (winter)		°C	°C	32.22	20.22	17.89	299		
7.	Temperature (summer)		°C	°C	41.11	29.46	23.89	421		
0	pH (minimum)		Standard units	s.u.	7.70		7.36	312		
8.	pH (maximum)		Standard units	s.u.	9.00			312		

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABL	B. TOXIC METALS, CYANIDE,	TOTAL PHE		ORGANIC T	OXIC POLLUTANTS	(40 CF	R 122.21(g)(7)	(v)) <sup>1</sup>				
				ck one)				Efflu	uent			ake ional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyse
	Check here if you qualify as a sr 2 through 5 of this table. Note, h											
Section	on 1. Toxic Metals, Cyanide, and	Total Pheno	ols									
1.1	Antimony, total				Concentration	mg/L	<0.0015			1		
1.1	(7440-36-0)				Mass I	lb/day	<0.50			1		
1.2	Arsenic, total					mg/L	<0.00039			1		
1.2	(7440-38-2)					lb/day	<0.13			1		
1.3	Beryllium, total					mg/L	<0.00017			1		
	(7440-41-7)					lb/day	<0.057			1		
1.4	Cadmium, total (7440-43-9)	<b>V</b>				mg/L	<0.00028			1		
						lb/day	<0.093 0.0027			1		
1.5	Chromium, total (7440-47-3)	<b>V</b>				mg/L lb/day	0.0027			1		
-	Copper, total				-	mg/L	0.0023		-	1		
1.6	(7440-50-8)					lb/day	0.77			1		
	Lead, total					mg/L	0.0011			1		manae-g
1.7	(7439-92-1)					lb/day	0.37			1		-
1.0	Mercury, total				Concentration	mg/L	0.0000075			1		
1.8	(7439-97-6)	✓			Mass	lb/day	0.0029			1		
1.9	Nickel, total				Concentration	mg/L	0.0045			1		
1.9	(7440-02-0)				Mass I	lb/day	1.50			1		
1.10	Selenium, total					mg/L	<0.00082			1		
1110	(7782-49-2)					lb/day	<0.27			1		v
1.11	Silver, total					mg/L	<0.00012		-	1		
	(7440-22-4)				Mass	lb/day	<0.040			1		

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TABL	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence	ORGANIC T or Absence ck one)	OXIC POLLUTANT	rs (40 CF	R 122.21(g)(7)		uent		In	take
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
1.12	Thallium, total	V			Concentration	mg/L	<0.00012			1		
1.12	(7440-28-0)				Mass	lb/day	<0.040			1		
1.13	Zinc, total	<b>V</b>			Concentration	mg/L	0.046			1		
1,10	(7440-66-6)				Mass	lb/day	15.32			1		
1.14	Cyanide, total	V			Concentration	mg/L	<0.0035			1		
	(57-12-5)				Mass	lb/day	<1.17			1		
1.15	Phenois, total				Concentration	mg/L	<0.0020			1		
					Mass	lb/day	<0.67			1		
Section	on 2. Organic Toxic Pollutants (	GC/MS Fract	ion-Volatil	e Compound	T							
2.1	Acrolein	<b>V</b>			Concentration	mg/L	<0.0033			1		
	(107-02-8)				Mass	lb/day	<1.10			1		
2.2	Acrylonitrile				Concentration	mg/L	<0.0028			1		
	(107-13-1)				Mass	lb/day	<0.93			1		
2.3	Benzene	V			Concentration	mg/L	<0.00050			1		
	(71-43-2)				Mass	lb/day	<0.17			1		
2.4	Bromoform				Concentration	mg/L	<0.00025			1		
	(75-25-2)				Mass	lb/day	<0.083			1		
2.5	Carbon tetrachloride				Concentration	mg/L	<0.00019			1		
	(56-23-5)				Mass	lb/day	<0.063			1		
2.6	Chlorobenzene				Concentration	mg/L	<0.00015			1		
	(108-90-7)				Mass	lb/day	<0.050			1		
2.7	Chlorodibromomethane	V			Concentration	mg/L	<0.00024			1		
	(124-48-1)				Mass	lb/day	<0.080			1		
2.8	Chloroethane				Concentration	mg/L	<0.00076			1		
	(75-00-3)				Mass	lb/day	<0.25			1		

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002/003 ALD000645457 AL0003018 International Paper - Riverdale TABLE B. TOXIC METALS, CYANIDE, TOTAL PHENOLS, AND ORGANIC TOXIC POLLUTANTS (40 CFR 122.21(q)(7)(v))1 Presence or Absence Intake (check one) Effluent (optional) **Testing** Units Long-Term Pollutant/Parameter Long-Maximum Maximum Believed Believed Number (and CAS Number, if available) Required (specify) Average Number Term Daily Monthly Present **Absent** Daily of of Discharge Average Discharge Discharge **Analyses Analyses** (required) (if available) Value (if available) Concentration 2-chloroethylvinyl ether mg/L < 0.0020 1  $\overline{\mathbf{V}}$ (110-75-8)Mass lb/day < 0.67 1 Concentration mg/L < 0.00090 1 **V** Chloroform (67-66-3) 2.10 Mass lb/day < 0.30 1 Concentration < 0.00050 1 Dichlorobromomethane mg/L 1 2.11 (75-27-4)Mass lb/day < 0.17 1 Concentration < 0.00050 1,1-dichloroethane mg/L 1  $\checkmark$ 2.12 (75-34-3)Mass lb/day < 0.17 1 Concentration mg/L < 0.00019 1 1,2-dichloroethane  $\checkmark$ 2.13 (107-06-2)Mass lb/day < 0.063 1 Concentration < 0.00050 mg/L 1 1,1-dichloroethylene  $\checkmark$ 2.14 (75-35-4)Mass lb/day < 0.17 1 Concentration < 0.00050 mg/L 1 1,2-dichloropropane  $\checkmark$ 2.15 (78-87-5)Mass lb/day < 0.17 1 Concentration mg/L < 0.0010 1 1,3-dichloropropylene  $\checkmark$ 2.16 (542-75-6)Mass lb/day < 0.33 1 Concentration mg/L < 0.00050 1 Ethylbenzene  $\checkmark$ 2.17 (100-41-4)Mass lb/day < 0.17 1 Concentration Methyl bromide mg/L < 0.00098 1 **V** 2.18 (74-83-9)Mass 1 lb/day < 0.33 Concentration mg/L < 0.00090 1 Methyl chloride **V** 2.19 (74-87-3)Mass lb/day < 0.30 1 Concentration mg/L < 0.0030 1 Methylene chloride  $\checkmark$ 2.20 (75-09-2)Mass lb/day <1.00 1 Concentration mg/L < 0.00050 1 1,1,2,2- tetrachloroethane  $\checkmark$ 2.21 (79-34-5)Mass lb/day < 0.17 1

**Facility Name** 

NPDES Permit Number

**EPA Identification Number** 

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	ALD000645457		03018		rnational Paper - Ri			002/003			OND	0. 2010-0001
TABL	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence	ORGANIC T or Absence ck one)	OXIC POLLUTANT	rs (40 CF)	R 122.21(g)(7)		uent			take
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
2.22	Tetrachloroethylene	V			Concentration	mg/L	<0.00090			1		
	(127-18-4)				Mass	lb/day	<0.30			1		
2.23	Toluene	<b>V</b>			Concentration	mg/L	<0.00090			1		
	(108-88-3)				Mass	lb/day	<0.30			1		
2.24	1,2-trans-dichloroethylene				Concentration	mg/L	<0.00050			1		
	(156-60-5)				Mass	lb/day	<0.17			1		
2.25	1,1,1-trichloroethane (71-55-6)				Concentration	mg/L	<0.00018			1		
					Mass	lb/day	<0.060			1		
2.26	1,1,2-trichloroethane (79-00-5)				Concentration	mg/L	<0.00021			1		
					Mass	lb/day	<0.070			1		
2.27	Trichloroethylene (79-01-6)	<b>V</b>			Concentration Mass	mg/L	<0.00015			1		
					Concentration	lb/day	<0.050 <0.00050			1		
2.28	Vinyl chloride (75-01-4)	<b>V</b>			Mass	mg/L lb/day	<0.00030			1		
Section	on 3. Organic Toxic Pollutants	(GC/MS Fract	ion—Acid C	compounds)	1410.33	ID/ day	V0.17			1		
	2-chlorophenol				Concentration	μg/L	<11			1	1	
3.1	(95-57-8)	V			Mass	lb/day	<3.66			1		
	2,4-dichlorophenol				Concentration	μg/L	<9.6			1		
3.2	(120-83-2)				Mass	lb/day	<3.20			1		
2.2	2,4-dimethylphenol				Concentration	μg/L	<9.6			1		
3.3	(105-67-9)			Ш	Mass	lb/day	<3.20			1		
2.4	4,6-dinitro-o-cresol	V			Concentration	μg/L	. <7.7			1		
3.4	(534-52-1)				Mass	lb/day	<2.56			1		
3.5	2,4-dinitrophenol				Concentration	μg/L	<16			1		
3.3	(51-28-5)				Mass	lb/day	<5.33			1		

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				or Absence ck one)				Efflo	uent			ake ional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
3.6	2-nitrophenol	V			Concentration	μg/L	<12			1		
3.0	(88-75-5)				Mass	lb/day	<4.00			1		
3.7	4-nitrophenol	<b>V</b>			Concentration	μg/L	<10			1		
3.7	(100-02-7)				Mass	lb/day	<3.33			1		
3.8	p-chloro-m-cresol	<b>V</b>			Concentration	µg/L	<18			1		
0.0	(59-50-7)				Mass	lb/day	<5.99			1		
3.9	Pentachlorophenol				Concentration	μg/L	<6.7			1		
0.0	(87-86-5)				Mass	lb/day	<2.23	<2.23	****	1		
3.10	Phenol				Concentration	μg/L	<5.3			1		
3.10	(108-95-2)				Mass	lb/day	<1.76			1		
3.11	2,4,6-trichlorophenol	<b>V</b>			Concentration	μg/L	<13			1		
	(88-05-2)				Mass	lb/day	<4.33			1		
Section	on 4. Organic Toxic Pollutants (	GC/MS Fract	ion—Base /	Neutral Com								
4.1	Acenaphthene				Concentration	μg/L	<0.77			1		
	(83-32-9)				Mass	lb/day	<0.26			1		
4.2	Acenaphthylene	<b>V</b>			Concentration	μg/L	<0.82			1		
	(208-96-8)				Mass	lb/day	<0.27			1		
4.3	Anthracene	<b>V</b>			Concentration	µg/L	<0.87			1		
	(120-12-7)		-		Mass	lb/day	<0.29			1		
4.4	Benzidine	V			Concentration	μg/L	<96			1		
	(92-87-5)				Mass	lb/day	<31.97			1		
4.5	Benzo (a) anthracene	V			Concentration	μg/L	3.2			1		
	(56-55-3)				Mass	lb/day	1.07			1		
4.6	Benzo (a) pyrene	<b>V</b>			Concentration	μg/L	1.0			1		
	(50-32-8)				Mass	lb/day	0.33			1		

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				or Absence				Efflo	uent			ake ional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
4.7	3,4-benzofluoranthene (205-99-2)	<b>V</b>			Concentration	μg/L	1.0			1		
					Mass Concentration	lb/day	0.33			1		
4.8	Benzo (ghi) perylene (191-24-2)	$\checkmark$			Mass	μg/L lb/day	<1.1			1		
	Benzo (k) fluoranthene			_	Concentration	μg/L	1.5			1		
4.9	(207-08-9)				Mass	lb/day	0.50			1		
4.40	Bis (2-chloroethoxy) methane				Concentration	μg/L	<0.77			1		
4.10	(111-91-1)				Mass	lb/day	<0.26			1		
4.11	Bis (2-chloroethyl) ether	V			Concentration	μg/L	<13.0			1		
7.11	(111-44-4)				Mass	lb/day	<4.33			1		
4.12	Bis (2-chloroisopropyl) ether				Concentration	μg/L	<0.77			1		
	(102-80-1)			_	Mass	lb/day	<0.26			1		
4.13	Bis (2-ethylhexyl) phthalate	V			Concentration	μg/L	<24			1		
	(117-81-7)				Mass	lb/day	<7.99			1		
4.14	4-bromophenyl phenyl ether (101-55-3)	<b>V</b>			Concentration	μg/L	<0.96			1		
					Mass	lb/day	<0.32			1		
4.15	Butyl benzyl phthalate (85-68-7)	<b>V</b>			Concentration Mass	μg/L lb/day	0.40		-	1		
		-			Concentration	μg/L	<0.67			1		
4.16	2-chloronaphthalene (91-58-7)				Mass	lb/day	<0.22			1		
	4-chlorophenyl phenyl ether				Concentration	μg/L	<9.6		-	1		
4.17	(7005-72-3)				Mass	lb/day	<3.20			1		
4.10	Chrysene	V			Concentration	μg/L	2.3			1		
4.18	(218-01-9)	ĬŽ.			Mass	lb/day	0.77			1		
4.19	Dibenzo (a,h) anthracene				Concentration	μg/L	<1.2			1		
4.13	(53-70-3)				Mass	lb/day	<0.40			1		

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NPDES Permit Number Facility Name Outfall Number

AL0003018 International Paper - Riverdale 002/003

				or Absence ck one)				Efflu	uent			take tional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
1.20	1,2-dichlorobenzene				Concentration	mg/L	<0.00050			1		
1.20	(95-50-1)				Mass	lb/day	<0.17			1		
1.21	1,3-dichlorobenzene				Concentration	mg/L	<0.00054			1		
	(541-73-1)				Mass	lb/day	<0.18			1		
1.22	1,4-dichlorobenzene				Concentration	mg/L	<0.00064			1		
	(106-46-7)				Mass	lb/day	<0.21			1		
1.23	3,3-dichlorobenzidine	<b>V</b>			Concentration	μg/L	<13			1		
	(91-94-1)				Mass	lb/day	<4.33			1		
1.24	Diethyl phthalate				Concentration	μg/L	<1.2			1		
	(84-66-2)				Mass	lb/day	<0.40			1		
4.25	Dimethyl phthalate				Concentration	µg/L	<0.82			1		
	(131-11-3)				Mass	lb/day	<0.27			1		
4.26	Di-n-butyl phthalate				Concentration	μg/L	<6.7			1		
	(84-74-2)				Mass	lb/day	<2.23			1		
4.27	2,4-dinitrotoluene (121-14-2)	<b>V</b>			Concentration	μg/L	<9.2			1		
			-		Mass	lb/day	<3.06			1		
4.28	2,6-dinitrotoluene (606-20-2)	<b>V</b>			Concentration	µg/L	<9.2			1		
					Mass	lb/day	<3.06			1		-
4.29	Di-n-octyl phthalate (117-84-0)	<b>V</b>			Concentration Mass	μg/L	1.0			1		
						lb/day	0.33			1		
4.30	1,2-Diphenylhydrazine (as azobenzene) (122-66-7)	<b>V</b>			Concentration Mass	μg/L lb/day	<4.8 <1.60			1	-	
		-			Concentration	μg/L	<0.87			1		
4.31	Fluoranthene (206-44-0)	✓			Mass	lb/day	<0.29			1		
					Concentration	µg/L	<0.29					
4.32	Fluorene (86-73-7)	✓			Mass	lb/day	<0.29			1		

**EPA Identification Number** 

ALD000645457

fall Number Form Approved 03/05/19
02/003 OMB No. 2040-0004

				or Absence ck one)				Efflo	uent			ake ional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
4.33	Hexachlorobenzene	V			Concentration	μg/L	<0.82			1		
1.00	(118-74-1)				Mass	lb/day	<0.27			1		
4.34	Hexachlorobutadiene				Concentration	μg/L	<17			1		
	(87-68-3)				Mass	lb/day	<5.66			1		
4.35	Hexachlorocyclopentadiene				Concentration	μg/L	<13			1		
	(77-47-4)				Mass	lb/day	<4.33			1		
4.36	Hexachloroethane				Concentration	μg/L	<20			1		
	(67-72-1)				Mass	lb/day	<6.66			1		
4.37	Indeno (1,2,3-cd) pyrene (193-39-5)	✓			Concentration Mass	μg/L	<1.1			1		
					Concentration	lb/day	<0.37 <0.67			1		
4.38	Isophorone (78-59-1)	✓			Mass	μg/L lb/day	<0.87			1		
					Concentration	μg/L	<0.82			1		4
4.39	Naphthalene (91-20-3)	✓			Mass	lb/day	<0.27			1		
	Nitrobenzene			_	Concentration	μg/L	<0.63			1		
4.40	(98-95-3)	V			Mass	lb/day	<0.21			1		
	N-nitrosodimethylamine				Concentration	μg/L	<17			1		
4.41	(62-75-9)	✓			Mass	lb/day	<5.66			1		
4.40	N-nitrosodi-n-propylamine	<b>V</b>			Concentration	μg/L	<16			1		23.77
4.42	(621-64-7)				Mass	lb/day	<5.33			1		
4.42	N-nitrosodiphenylamine	V			Concentration	μg/L	<0.87			1		
4.43	(86-30-6)	\\		Ш	Mass	lb/day	<0.29			1		
4.44	Phenanthrene				Concentration	μg/L	<0.87			1		
4.44	(85-01-8)				Mass	lb/day	<0.29			1		
4.45	Pyrene	<b>V</b>			Concentration	μg/L	<1.0			1		
4,40	(129-00-0)				Mass	lb/day	<0.33			1		

Outfall Number Form Approved 03/05/19
002/003 OMB No. 2040-0004

	E B. TOXIC METALS, CYANIDE		Presence	or Absence ck one)					uent			take tional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
4.46	1,2,4-trichlorobenzene	V			Concentration	μg/L	<0.87			1		
	(120-82-1)				Mass	lb/day	<0.29			1		
Section	on 5. Organic Toxic Pollutants (	GC/MS Fract	on-Pestic	ides)	Concentration	/1	<0.0000015			1	I	I
5.1	Aldrin (309-00-2)	<b>V</b>			Mass	mg/L lb/day	<0.000015			1		
					Concentration	mg/L	<0.000030			1		
5.2	α-BHC (319-84-6)				Mass	lb/day	<0.00077			1		
	β-ВНС				Concentration	mg/L	<0.000077			1		
5.3	(319-85-7)				Mass	lb/day	<0.0022			1		
	y-BHC				Concentration	mg/L	<0.0000016			1		
5.4	(58-89-9)				Mass	lb/day	<0.00053			1		
	б-ВНС				Concentration	mg/L	<0.0000033			1		
5.5	(319-86-8)				Mass	lb/day	<0.00011			1		
F.C	Chlordane	V			Concentration	mg/L	<0.000021			1		
5.6	(57-74-9)	V			Mass	lb/day	<0.0070			1		
5.7	4,4'-DDT				Concentration	mg/L	<0.0000069			1		
3.7	(50-29-3)				Mass	lb/day	<0.0023			1		
5.8	4,4'-DDE	<b>V</b>			Concentration	mg/L	<0.0000044			1		
	(72-55-9)				Mass	lb/day	<0.0015			11		
5.9	4,4'-DDD				Concentration	mg/L	<0.0000032			1		
	(72-54-8)				Mass	lb/day	<0.0011			1		
5.10	Dieldrin (60-57-1)	<b>V</b>			Concentration	mg/L	<0.0000018			1		
					Mass Concentration	lb/day	<0.00060			1		
5.11	α-endosulfan (115-29-7)	<b></b>			Mass	mg/L lb/day	<0.000038			1		

lumber Form Approved 03/05/19 OMB No. 2040-0004

				or Absence ck one)				Efflu	uent			ake ional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
5.12	β-endosulfan	V			Concentration	mg/L	<0.0000083			1		
	(115-29-7)				Mass	lb/day	<0.0028			1		
5.13	Endosulfan sulfate	<b>V</b>			Concentration	mg/L	<0.000017			1		
	(1031-07-8)				Mass	lb/day	<0.0057			1		***
5.14	Endrin (72-20-8)	<b>V</b>			Concentration	mg/L	<0.0000041			1		
					Mass	lb/day	<0.0014			1		
5.15	Endrin aldehyde (7421-93-4)	<b>V</b>			Concentration Mass	mg/L	<0.0000059			1		
					Concentration	lb/day mg/L	<0.0020			1		-
5.16	Heptachlor (76-44-8)	<b>V</b>			Mass	lb/day	<0.0000			1		
	Heptachlor epoxide				Concentration	mg/L	<0.000003			1		
5.17	(1024-57-3)	✓			Mass	lb/day	<0.00077			1		
	PCB-1242				Concentration	mg/L	<0.00013			1		
5.18	(53469-21-9)	V			Mass	lb/day	<0.043			1		
	PCB-1254				Concentration	mg/L	<0.00011			1		
5.19	(11097-69-1)	✓			Mass	lb/day	<0.037			1		
- 00	PCB-1221				Concentration	mg/L	<0.00014			1		
5.20	(11104-28-2)	<b>V</b>			Mass	lb/day	<0.047			1		
E 21	PCB-1232	V			Concentration	mg/L	<0.00012			1		_
5.21	(11141-16-5)	V.			Mass	lb/day	<0.040			1		
5.22	PCB-1248	V			Concentration	mg/L	<0.000090			1		
J.ZZ	(12672-29-6)				Mass	lb/day	<0.030			1		
5.23	PCB-1260				Concentration	mg/L	<0.000043			1		
J.23	(11096-82-5)				Mass	lb/day	<0.014			1		
5.24	PCB-1016 (12674-11-2)				Concentration	mg/L	<0.000059			1		
0.27	(120/4-11-2)				Mass	lb/day	<0.020			1		

	EPA Identification Number ALD000645457		ermit Number 03018	Inte	Facility Name ernational Paper - R	tiverdale		outfall Number 002/003				ved 03/05/19 o. 2040-0004
TABL	E B. TOXIC METALS, CYANIDE	, TOTAL PHE	Presence	ORGANIC Tor Absence	OXIC POLLUTAN	TS (40 CF	R 122.21(g)(7)		uent			take tional)
	Pollutant/Parameter (and CAS Number, if available)	Testing Required	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long- Term Average Value	Number of Analyses
5.25	Toxaphene				Concentration	mg/L	<0.00014			1		
J.ZJ	(8001-35-2)		]		Mass	lb/day	<0.047			1		

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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		Believed Present Believed Absent					Efflo	uent		Inta (Optio	
	Pollutant			Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
	Check here if you be each pollutant.	elieve all polluta	ants on Table	C to be <i>present</i> in	your discha	rge from the noted o	utfall. You need	not complete the "P	resence or Abse	ence" column of 1	Table C for
	Check here if you be each pollutant.	elieve all polluta	ants on Table	C to be <b>absent</b> in g	your dischar	ge from the noted ou	utfall. You need	not complete the "Pr	esence or Abse	nce" column of T	able C for
1.	Bromide		Ø	Concentration	mg/L	<7.9			1		
1.	(24959-67-9)			Mass	lb/day	<2,631			1		
2.	Chlorine, total		<b>V</b>	Concentration	mg/L	<0.057			1		
	residual			Mass	lb/day	<18.98			1		
3.	Color	<b>V</b>		Concentration	Color Unit	1700			1		
). 	COIOI			Mass		N/A					
١.	Fecal coliform			Concentration	CPU/100m	7000			1		
	i ecai comorni			Mass		N/A					
5.	Fluoride		<b>V</b>	Concentration	mg/L	<2.2			1		
٠.	(16984-48-8)			Mass	lb/day	<732.56			1	•	
6	Nitrate-nitrite	<b>V</b>		Concentration	mg/L	0.55		0.28	15		
_	Thirdie Hidrie			Mass	lb/day	367.20		116.81	15		
7.	Nitrogen, total	<b>V</b>		Concentration	mg/L	10.60		6.23	15		
	organic (as N)			Mass	lb/day	7,077		2,599	15	45-4-4	
8.	Oil and grease	<b>V</b>		Concentration	mg/L	<1.3			1		
·.	Oil and grease			Mass	lb/day	<432.88			1		
9.	Phosphorus (as	✓		Concentration	mg/L	9.20		2.04	15		
٠.	P), total (7723-14-0)			Mass	lb/day	6,142		851.06	15		
0.	Sulfate (as SO <sub>4</sub> )	<b>V</b>		Concentration	mg/L	270			1		
	(14808-79-8)			Mass	lb/day	89,905			1		
11.	Sulfide (as S)	<b>V</b>		Concentration	mg/L	0.52			1		
	Canac (as c)			Mass	lb/day	173.15			1		

		Presence or Absence (check one)					Effluent				
	Pollutant	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
12.	Sulfite (as SO <sub>3</sub> )			Concentration							
	(14265-45-3)			Mass							
13.	Surfactants			Concentration	mg/L	<0.067			1		
				Mass	lb/day	<22.31			1		
14.	Aluminum, total	$\overline{\checkmark}$		Concentration	mg/L	0.60			1		
	(7429-90-5)			Mass	lb/day	199.79			1		
15.	Barium, total	<b>7</b>		Concentration	mg/L	0.17			1		
	(7440-39-3)			Mass	lb/day	56.61			1		
16.	Boron, total (7440-42-8)	<b>/</b>		Concentration	mg/L	0.15		-	1		
				Mass	lb/day	49.95			1		
17.	Cobalt, total (7440-48-4)		<b>V</b>	Concentration	mg/L	<0.0028			1		
				Mass	lb/day	<0.932			1		
18.	Iron, total (7439-89-6)	$\checkmark$		Concentration	mg/L	<0.40			1		
				Mass	lb/day	<133.19			1		
19.	Magnesium, total (7439-95-4)	<b>V</b>		Concentration	mg/L	6.9			1		
	Molybdenum,			Mass	lb/day	2,298			1		
20.	total			Concentration	mg/L	<0.023			1		
	(7439-98-7)			Mass	lb/day	<7.66			1		
21.	Manganese, total	<b>7</b>		Concentration	mg/L	0.68			1		
	(7439-96-5)			Mass	lb/day	226.43			1		
22.	Tin, total			Concentration	mg/L	<0.008			1		
	(7440-31-5)			Mass	lb/day	<2.66			1		
23.	Titanium, total			Concentration	mg/L	<0.009			1		
-0.	(7440-32-6)			Mass	lb/day	<2.99			1		

		Presence or Absence (check one)						Intake (Optional)			
	Pollutant	Believed Present	Believed Absent	Units (specify)		Maximum Daily Discharge (required)	Maximum Monthly Discharge (if available)	Long-Term Average Daily Discharge (if available)	Number of Analyses	Long-Term Average Value	Number of Analyses
4.	Radioactivity			NACE OF THE PARTY							
13	Alaba Astal	F21	П	Concentration	pCi/L	<10.5			1		
	Alpha, total			Mass							
		F2		Concentration	pCi/L	4.97			1		
	Beta, total	$\square$		Mass							
	5 "			Concentration	pCi/L	0.0681		P	1		
	Radium, total	<b>V</b>		Mass							
	5 " 000 !			Concentration	pCi/L	0.262			1		
	Radium 226, total	✓		Mass							

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TAB	LE D. CERTAIN HAZARDOUS SUBST			21(g)(7)(vii)) <sup>1</sup>	
	Pollutant	Presence o	r Absence one)	David David David David District	Available Quantitative Data
	Pondan	Believed Present	Believed Absent	Reason Pollutant Believed Present in Discharge	(specify units)
1.	Asbestos		✓		
2.	Acetaldehyde	<b>V</b>		Published industry data (NCASI)	
3.	Allyl alcohol		<b></b>		
4.	Allyl chloride		<b></b>		
5.	Amyl acetate		Ø		
6.	Aniline		Ø		
7.	Benzonitrile		✓		
8.	Benzyl chloride		✓		
9.	Butyl acetate		<b></b>		
10.	Butylamine		<b></b>		
11.	Captan		<b></b>		
12.	Carbaryl		<b></b>		
13.	Carbofuran		✓		
14.	Carbon disulfide	<b></b>		Published industry data (NCASI)	
15.	Chlorpyrifos		<b>Ø</b>		
16.	Coumaphos		<b>Ø</b>		
17.	Cresol	<b>V</b>		Published industry data (NCASI)	
18.	Crotonaldehyde		<b>Ø</b>		
19.	Cyclohexane		<b>V</b>		

TAB	LE D. CERTAIN HAZARDOUS SUBSTAN			21(g)(7)(vii)) <sup>1</sup>	
		Presence o			Available Quantitative Data
	Pollutant	Believed Present	Believed Absent	Reason Pollutant Believed Present in Discharge	(specify units)
20.	2,4-D (2,4-dichlorophenoxyacetic acid)		✓		
21.	Diazinon		<b>V</b>		
22.	Dicamba		V		
23.	Dichlobenil		<b>V</b>		
24.	Dichlone		V		
25.	2,2-dichloropropionic acid		V		
26.	Dichlorvos		V		
27.	Diethyl amine		V		
28.	Dimethyl amine		V		
29.	Dintrobenzene		<b>V</b>		
30.	Diquat		V		
31.	Disulfoton		V		
32.	Diuron		V		
33.	Epichlorohydrin		V		
34.	Ethion				
35.	Ethylene diamine		V		
36.	Ethylene dibromide		V		
37.	Formaldehyde	Ø		Published industry data (NCASI)	
38.	Furfural		V		

TAB	LE D. CERTAIN HAZARDOUS SUBSTAN	CES AND ASBEST	OS (40 CFR 122.2	21(g)(7)(vii))¹	
	Dellistent	Presence o			Available Quantitative Data
	Pollutant	Believed Present	Believed Absent	Reason Pollutant Believed Present in Discharge	(specify units)
39.	Guthion		✓		
40.	Isoprene		<b>V</b>		
41.	Isopropanolamine		<b>V</b>		
42.	Kelthane		<b>V</b>		
43.	Kepone		<b>V</b>		
44.	Malathion		<b></b>		
45.	Mercaptodimethur		✓		
46.	Methoxychlor		<b></b>		
47.	Methyl mercaptan		<b></b>		
48.	Methyl methacrylate		<b>4</b>		
49.	Methyl parathion		<b>7</b>		
50.	Mevinphos		<b></b>		
51.	Mexacarbate		Ø		
52.	Monoethyl amine		<b></b>		
53.	Monomethyl amine		<b></b>		
54.	Naled		<b></b>		
55.	Naphthenic acid		<b>7</b>		
56.	Nitrotoluene		<b></b>		
57.	Parathion		<b>V</b>		

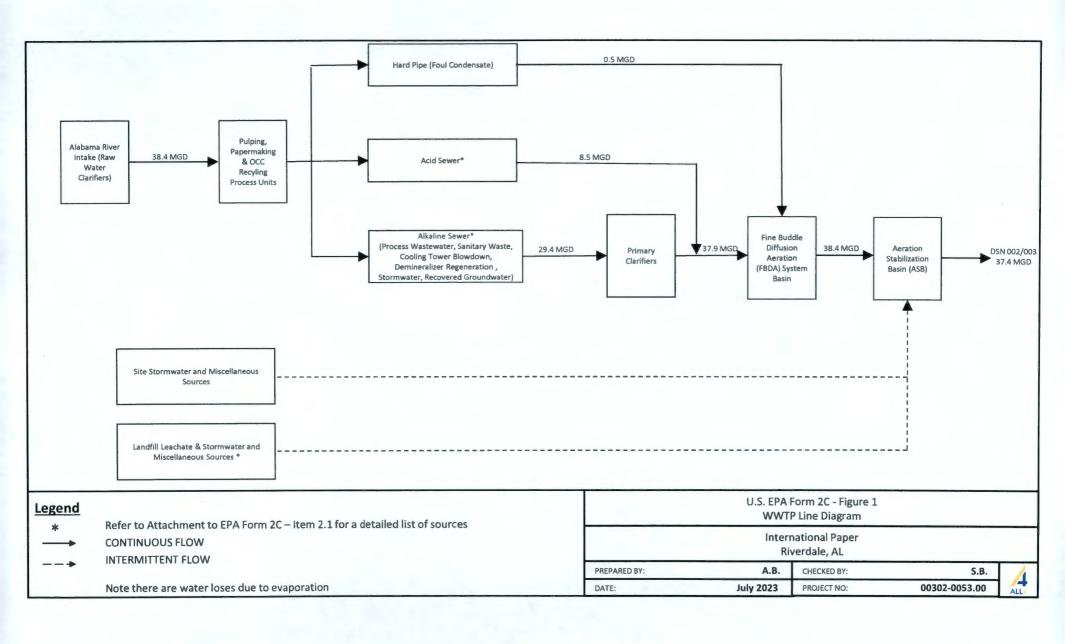
TAB	LE D. CERTAIN HAZARDOUS SUBSTAN	CES AND ASBEST	OS (40 CFR 122.2	21(g)(7)(vii))¹	
		Presence of (check	r Absence		Available Quantitative Data
	Pollutant	Believed Present	Believed Absent	Reason Pollutant Believed Present in Discharge	(specify units)
58.	Phenolsulfonate		<b>V</b>		
59.	Phosgene		<b>7</b>		
60.	Propargite		<b>V</b>		
61.	Propylene oxide		<b>V</b>		
62.	Pyrethrins		<b>V</b>		
63.	Quinoline		<b>V</b>		
64.	Resorcinol		<b>V</b>		
65.	Strontium		<b>V</b>		
66.	Strychnine		<b>V</b>		
67.	Styrene	<b>V</b>		Published industry data (NCASI)	
68.	2,4,5-T (2,4,5-trichlorophenoxyacetic acid)		<b>V</b>		
69.	TDE (tetrachlorodiphenyl ethane)		✓		
70.	2,4,5-TP [2-(2,4,5-trichlorophenoxy) propanoic acid]		<b>V</b>		
71.	Trichlorofon		<b>V</b>		
72.	Triethanolamine		<b>V</b>		
73.	Triethylamine		<b>V</b>		
74.	Trimethylamine		<b>V</b>		
75.	Uranium		<b>V</b>		
76.	Vanadium	<b>V</b>		Published industry data (NCASI)	

	Pollutant	Presence o			Available Quantitative Data	
	rondant	Believed Present	Believed Absent	Reason Pollutant Believed Present in Discharge	(specify units)	
77.	Vinyl acetate	✓		Published industry data (NCASI)		
78.	Xylene	Ø		Published industry data (NCASI)		
79,	Xylenol		<b></b>			
80.	Zirconium		<b>V</b>			

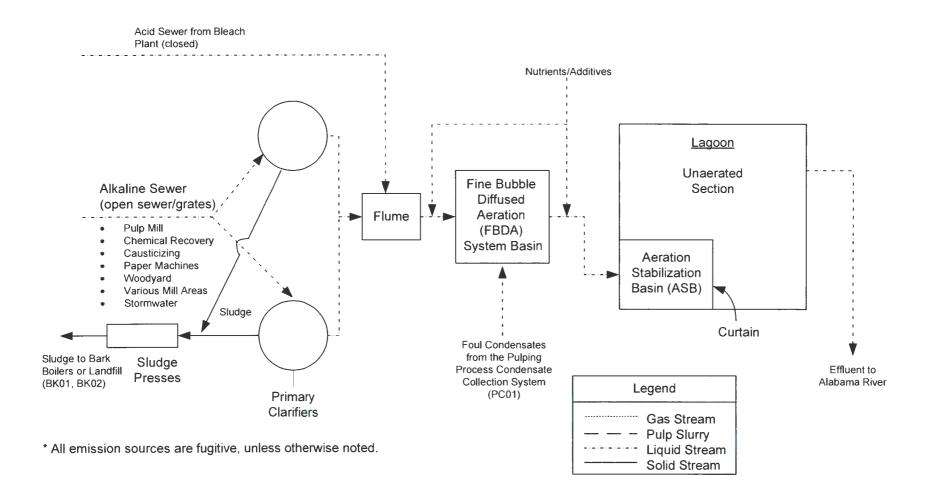
<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number ALD000645457	NPDES Per AL000		Inter	Facility Name national Paper - Riverdale	Outfall Number 002/003	Form Approved 03/05/19 OMB No. 2040-0004		
ABLE E. 2,3,7,8 TETRACHLO	RODIBENZO P DIOX	(IN (2,3,7,8 T	CDD) (40 CI	FR 122.21(g)(7)(viii))				
Pollutant	TCDD Congeners	Abs	nce or ence k one)		Results of Screening Pro	cedure		
	Used or Manufactured	Believed   Believ						
2,3,7,8-TCDD			Ø	· ·		1003 annually and DSN003A and DSN003B have been below laboratory detection		



### Process Flow Diagram - Wastewater Collection and Treatment (WW01)\*



#### U.S. EPA Form 2C Item 2.1:

**Operations Contributing Wastewater:** 

Wastewater contributions include wastewater from kraft pulp and paper mill and recycled pulp mill; boiler and cooling tower blowdown; sludge dewatering liquid; lime kiln scrubber and boiler scrubber wastewater; miscellaneous wastewaters from shops and offices; sanitary wastewater, contaminated groundwater from a groundwater remediation project and process area stormwater. Bleached Kraft pulping, papermaking, and OCC plant process effluents are contained in the following streams: A). Alkaline sewer, B). Acid sewer, C). Fine Bubble Diffused Aeration (FBDA) system influent, D). Final Aerated Stabilization (ASB) influent.

A). The alkaline sewer normally flows to two primary clarifiers operating in parallel. Contributors to this sewer include:

- Bleaching (sodium hydroxide, hydrogen peroxide and oxygen extraction stages)
- · Sanitary waste
- Kraft pulping
- Brown stock washers
- Chemical recovery
- Causticizing
- Boiler water
- Wood waste boiler scrubber discharge
- Demineralizer regenerate
- Cooling tower blowdown
- · Paper machines and finishing areas
- Precipitated calcium carbonate plant
- Primary clarifier screw press drainage
- Hydraulic, lubricating, or fuel oil from equipment leaks
- Fuel oil and lubrication oil secondary containment stormwater
- Water layer from oil/water separators
- Turpentine recovery and storage
- Tall oil recovery, acidulation and storage
- OCC plant
- Quality control laboratories
- Sludge/ash stormwater runoff
- Stormwater from plant site
- Groundwater diesel fuel remediation
- Outside storage areas' stormwater.
- Vehicle and equipment maintenance activities (e.g. antifreeze from radiator flushing/draining, soap or degreasers from cleanup activities and other maintenance activities associated with the pulping and papermaking process)
- Miscellaneous discharges from activities supporting or related to the process such as rinsing out trucks, flushing spent ion exchange resin and other activities associated with the pulping and papermaking process.

- B) The acid sewer bypasses the primary clarifiers and flows directly to the FBDA system. Contributors to this stream include:
  - · Bleaching acid stages (chlorine dioxide)
  - · Bleach plant scrubber blowdown and overflow
  - Chlorine dioxide generators and storage tanks
  - Miscellaneous discharges from activities supporting or related to the' pulping and papermaking process
- C) The contributors that flow to the FBDA system are:
  - Acid sewer
  - Cluster rule "hard pipe" condensates
  - Wood waste storage stormwater
  - · Outside storage area stormwater
  - Sanitary wastes
  - · Primary clarifiers overflows
  - Groundwater from diesel fuel remediation
  - Miscellaneous discharge from activities supporting or related to the pulping and papermaking process
- D) The contributors that flow directly to the final effluent treatment basin include:
  - Landfill stormwater and leachate
  - Raw process water clarified solids
  - Storm water and miscellaneous process waste from part of the causticizing area
  - Woodyard stormwater and wastewater
  - Precipitate calcium carbonate plant stormwater
  - Outside storage area stormwater
  - Fuel oil and lubrication oil secondary containment stormwater
  - Hydraulic, lubrication, and fuel oils from equipment leaks
  - · Raw water and portable water storage tanks overflow
  - Cooling tower blowdown water
  - · Groundwater from diesel fuel remediation
  - Water layer from oil/water separators
  - Miscellaneous discharges from activities supporting or related to the pulping and/or papermaking process.

### **Treatment Description**

The majority of the process wastewater is directed to either the acid or alkaline process sewer. The alkaline sewer is split and flows to two primary clarifiers operating in parallel. The resulting solids are pumped to sludge presses where the separated liquid is allowed to flow back to the clarifiers. The clarified wastewater from the clarifiers mixes with acid process sewer forming a process wastewater with a pH of greater than 2 and less than 12.5. The wastewater enters the FBDA system basin. The cluster rule "hard pipe" condensates (cooking, turpentine recovery, non-condensable gas collection, evaporator 5th effect, etc.) are introduced to this basin. The process wastewater (effluent) exits the FBDA system into the ASB that is separated from the final polishing basin by a curtain. Stormwater

runoff from areas to the mill site including the permitted landfill, clarified solids from the mill process water clarifiers, woodyard wastewater, and lime kiln wastewater are contained in the waste streams that enter the final polishing basin. Effluent from the final polishing basin is discharged to the Alabama River through DSN002 and/or DSN003.

The wastewater treatment system includes the following major process components and systems:

- Process Sewer System
- Influent collection
- Clarification
- Sludge thickening and dewatering
- Sludge disposal/incineration
- Treatment Chemicals & bioaugmentation systems
- Fine Bubble Diffused Aeration System (FBDA)
- Aerated Stabilization Basin (ASB)
- Quiescent/ settling zone
- Outfall to Alabama River

## U.S. EPA Form 2C, Item 3.1 Operations Contributing to Flow and Treatment Units International Paper - Riverdale, AL Mill

	Operations Cont	ributing Flow	Company of the Compan	Treatment Units	SALSON MULEUM
Outfall No.	Operation	Average Flow	Description	Code From Table 2C-1	Final Disposal of Solid or Liquid Wastes Other Than by Discharge
	Alkaline Sewer (A)	29.4 MGD	Mixing, sedimentation, neutralization, aerated lagoons, stabilization ponds, discharge to surface waters	1-O, 1-U, 2-K, 3-B, 3-G, 4-A	
002/003	Acid Sewer (B) 8.5 MGD		Mixing, sedimentation, neutralization, screening, pressure filtration, aerated lagoon stabilization ponds, discharge to surface water	1-O, 1-U, 2-K, 1-T, 5-R, 3-B, 3-G, 4-A	5-0 or 5-Q
	Cluster Rule "Hard Pipes" Condensate (C)	0.5 MGD	Aerated lagoon, stabilization ponds, discharge to surface water	3-B, 3-G, 4-A	
	Landfilled leachate, remediated groundwater, stormwater, misc. sources	Intermittent	Mixing, sedimentation, aerated lagoon, stabilization ponds, discharge to surface water	1-O, 1-U, 3-B, 3-G, 4-A	

# U.S. EPA Form 2C, Item 5.4 Average Daily Production International Paper - Riverdale, AL Mill

(1242) (124)	Average Da	aily Production	
Outfall Number	Operation, Product or Material	Quantity per Day	Unit of Measure
	Bleached Paper Production	1,703	MDT/day
DSN002 &	Unbleached Pulp Entering No. 1 Bleach Plant	579	ADMT/day
DSN003	Unbleached Pulp Entering No. 2 Bleach Plant	551	ADMT/day
	OCC Production	866	ADT/day

EPA Identification Number ALD000645457

NPDES Permit Number AL0003018

Facility Name International Paper - Riverdale Form Approved 03/05/19 OMB No. 2040-0004



## **U.S Environmental Protection Agency**

2F NPDES	8	<b>EPA</b>	Application for NPDES Permit to Discharge Wastewater STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY								
SECTION	N 1. OUT	FALL LOCA	TION (40 CFR 122.21(g		L3 A3	JUCIA	LD WITH	INDUSTR	CIAL ACTIV	.11	
	1.1		ormation on each of the		he table	below			-		
Outfall Location		Outfall Number	Receiving Water Na	me	Latitude				Longitude		
		DSN002	Alabama River	32°	24	50"	N or S	86°	50′	50" E or W	
		DSN003	Alabama River	32°	24	50"	N or S	86°	50′	50" E or W	
				0	,	"	N or S	٥	,	" E or V	
				٥	,	"		۰	,	"	
				0	,	"		۰	,	n	
				٥	,	"		٥	,	39	
	2.2	upgrading, or operating wastewater treatment equipment or practices or any other environmental prograffect the discharges described in this application?  ☐ Yes ☐ No → SKIP to Section 3.									
- 11	2.2	Briefly identify each applicable project in the table below.									
Improvements		Brief Identification and		Affected Outfalls	Affected Outfalls ist outfall numbers)  Source(s) of Disch			arge	Final Compliance Date		
		Desci	Description of Project						Required	Projected	
	2.3	Have you a that may af	ttached sheets describi fect your discharges) th	ng any additional wa at you now have un	derway	ution co or plann	ntrol programed? (Option	ms (or othe	er environmer	Ital projects	

EPA Identification Number NPDES Permit Number ALD000645457 AL0003018

Facility Name International Paper - Riverdale Form Approved 03/05/19 OMB No. 2040-0004



### **U.S Environmental Protection Agency**

2F NPDES	9	<b>EPA</b>	Application for NPDES Permit to Discharge Wastewater STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY									
SECTION	N 1. OUT	FALL LOCA	TION (40 CFR 122.21		ES ASSOCIATED	WITTINDOSTI	MAL ACTIVI					
Outfall Location	1.1	Provide information on each of the facility's outfalls in the table below										
		Outfall Number	Receiving Water N	lame	Latitude			Longitude				
		004	Unnamed tributary	of the 32°	25 23"	86°	52′ 3:	1"				
		005	Unnamed tributary	of the 32°	25′ 15″	86°	52' 20	5"				
		006	Unnamed tributary	of the 32°	25′ 17″	86°	52′ 1!	5"				
				۰	, "	0	,	"				
				0	, ,,	•	,	"				
Age-				G	) 11	۰	,	"				
SECTION			S (40 CFR 122.21(g)(6									
Improvements		Are you presently required by any federal, state, or local authority to meet an implementation scheduling upgrading, or operating wastewater treatment equipment or practices or any other environmental properties the discharges described in this application?  ✓ Yes  ✓ No → SKIP to Section 3.										
	2.2	Briefly identify each applicable project in the table below.										
				Affected Outfalls			Final Compliance Dates					
		Desc	Description of Project (I		oourse(s)	or bloominge	Required	Projected				
		*										
	2.2	Hove you	attached sheets descri	ihing any additional v	vater pollution contro	l programs (or othe	er environment	al projects				
	2.3	that may a	ffect your discharges)	that you now have u	nderway or planned?	? (Optional Item)	21 CHAILOIMHGH	ai projecto				
		☐ Yes		<b>∠</b> 1	No							

	dentificatio		NPDES Permit Number AL0003018		y Name aper - Riverdale	Form Approved 03/05/19 OMB No. 2040-0004						
SECTION	N 2 CITE	DRAINAGE	MAP (40 CFR 122.26(c)(1)(i)(A		aper inverdale							
Drainage Map	2.1		ttached a site drainage map con		rmation to this applicatio	n? (See instructions for						
٥		<b>✓</b> Yes		□ No								
ECTIO	V 4. POL	LUTANT SOL	JRCES (40 CFR 122.26(c)(1)(i)	(B))								
	4.1	Provide information on the facility's pollutant sources in the table below.										
		Outfall	Impervious Surfac			e Area Drained						
		Number	(within a mile radius of t	he facility)  specify units	(within a mile ra	dius of the facility)						
		004	8	Acres	13	specify units Acres						
		005	12	specify units  Acres	18	specify units  Acres						
		006	29	specify units Acres	55	specify units Acres						
				specify units		specify units						
				specify units		specify units						
				specify units		specify units						
Pollutant Sources	4.3	requirements.)  Any liquid or solid chemical storage, usage, loading and unloading area in Outfall 004 drainage area has secondar containment or drains to a process sewer that flows to the effluent treatment system and Outfalls 002/003. There are no chemical storage, use, or unloading areas that drain to Outfall 005. However, a firewater storage tank this area can drain clean mill firewater to this outfall if the tank leaks or overflows. A diesel fuel storage tank, locat next to this tank, has secondary containment capable of holding 110% of its volume. The area where trucks are load with paper for offsite shipment drains to Outfall 005.  Vehicular fuel and deinking chemicals in the liquid and solid form are stored, used, loaded and unloaded in the area that drains to Outfall 006. Vehicular fuel tank has containment with valve that discharges to wastewater treatment  Deinking chemicals area has curbing chat directs flow to process sewer.  Provide the location and a description of existing structural and non-structural control measures to reduce pollutants stormwater runoff. (See instructions for specific guidance.)  Stormwater Treatment										
						Codes						
		Outfall Number		Control Measures and	Treatment	from Exhibit 2F-1 (list)						
			See Attachment	3.4								

	EPA Identification Number ALD000645457		NPDES Permit Number	Facility Name International Paper - Riverdale		Form Approved 03/05/19 OMB No. 2040-0004			
			AL0003018		Paper - Riverdale		ONIO 110. 2010 0001		
SECTIO	5.1	I certify under presence of n	DISCHARGES (40 CFR 122.26( penalty of law that the outfall(s) on-stormwater discharges. Moreo described in either an accompany	covered by thi	nat the outfalls iden	application have been tested or evaluated for the the outfalls identified as having non-stormwater CC, 2D, or 2E application.			
			type first and last name)	Official title					
		Michael Closson			Mill Manager				
		Signature		Date signed	•				
arges	5.2	Provide the test	ing information requested in the ta	ble below.					
Non-Stormwater Discharges		Outfall Number	Description of Testing Me	thod Used	Date(s) of Tes	sting	Onsite Drainage Points Directly Observed During Test		
ormwat			See Attachment						
Non-St									
SECTIO	N 6. SIG	NIFICANT LEAKS	S OR SPILLS (40 CFR 122.26(c)(	1)(i)(D))					
Significant Leaks or Spills	6.1		gnificant leaks or spills of toxic or haks or spills of toxic or hazardous			_	e past three years.		
SECTIO			MATION (40 CFR 122.26(c)(1)(i)(I		ruired to monitor and	in turn	the tables you must		
ation		te. Not all applica	etermine the pollutants and paraments need to complete each table. urce or new discharge?	eters you are rec	quired to monitor and	, iii (UIII	, the tables you must		
Discharge Information			See instructions regarding submiss	sion of	No → See instructions regarding submission of actual data.				
large	Tables	A, B, C, and D				10000			
Disch	7.2	Have you comp  Yes	leted Table A for each outfall?		No				

EPA	Identificatio	n Number	NPDES Permit Number	Faci	lity Name	Form Approved 03/05/19
A	LD00064	5457	AL0003018	International	Paper - Riverdale	OMB No. 2040-0004
	7.3	Is the facility wastewater	y subject to an effluent limitation guide ?	line (ELG) or eff	luent limitations in ar	NPDES permit for its process
		☐ Yes			No → SKIP to Iter	n 7.5.
	7.4		ompleted Table B by providing quantit			
			an ELG and/or (2) subject to effluent I	imitations in an l	NPDES permit for the	e facility's process wastewater?
		☐ Yes	Pending Sampling Analysis/Results		No	
	7.5	Do you kno	w or have reason to believe any pollut	ants in Exhibit 2	F–2 are present in th	e discharge?
		☐ Yes			No → SKIP to Iter	n 7.7.
	7.6		sted all pollutants in Exhibit 2F–2 that antitative data or an explanation for th			are present in the discharge and
		✓ Yes	Pending Sampling Analysis/Results		No	
	7.7	Do you qua	lify for a small business exemption und	der the criteria sp	pecified in the Instru	ctions?
		Yes	→ SKIP to Item 7.18.		No	
	7.8	Do you kno	w or have reason to believe any pollut	ants in Exhibit 2	F-3 are present in th	e discharge?
		☐ Yes			No → SKIP to Iter	n 7.10.
inued	7.9	Have you lis Table C?	sted all pollutants in Exhibit 2F-3 that	you know or hav	e reason to believe a	are present in the discharge in
Cont		☐ Yes	Pending Sampling Analysis/Results		No	
tion	7.10	Do you exp	ect any of the pollutants in Exhibit 2F-	3 to be discharg	ed in concentrations	of 10 ppb or greater?
rma		☐ Yes			No → SKIP to Iter	n 7.12.
Discharge Information Continued	7.11		rovided quantitative data in Table C foons of 10 ppb or greater?	r those pollutant	s in Exhibit 2F–3 tha	t you expect to be discharged in
scha		☐ Yes			No	
ΙŌ	7.12	Do you expo	ect acrolein, acrylonitrile, 2,4-dinitrophor greater?	enol, or 2-methy	l-4,6-dinitrophenol to	be discharged in concentrations
		☐ Yes			No → SKIP to Item	n 7.14.
	7.13		rovided quantitative data in Table C foin concentrations of 100 ppb or greate		dentified in Item 7.12	that you expect to be
		☐ Yes			No	
	7.14		rovided quantitative data or an explana t concentrations less than 10 ppb (or le			
		☐ Yes	Pending Sampling Analysis/Results		No	
	7.15	Do you know	w or have reason to believe any pollute	ants in Exhibit 2	-4 are present in th	e discharge?
		☐ Yes			No → SKIP to Iter	n 7.17.
	7.16	Have you lis explanation	sted pollutants in Exhibit 2F–4 that you in Table C?	know or believe	e to be present in the	discharge and provided an
		☐ Yes			No	
	7.17	Have you po	rovided information for the storm even	t(s) sampled in 1	able D?	
- "		☐ Yes			No	

EPA Id	dentification	n Number	NPDE	S Permit Number	Fa	cility Name		Form Approved 03/05/		
AL	LD00064	5457	1	AL0003018	Internationa	al Paper - Rive	erdale	OMB No. 2040-00		
	Used o	r Manufactur	red Toxics		1					
Discharge Information Continued	7.18			xhibits 2F–2 through 2F nediate or final product (	or byproduct?		nent of a subsi			
TIO	7.19		itants helow ii	ncluding TCDD if application						
DITTIC	7.10		adins bolow, ii	relating 1 ODD ii applie	auto,					
		1.		4.		7.				
harge		2.		5.		8.				
DISC		3.		6.			9.			
CTION	N 8. BIO	LOGICAL TO	XICITY TESTI	NG DATA (40 CFR 122	2.21(g)(11))					
Biological Toxicity Testing Data	8.1			lge or reason to believe on a receiving water in		discharge w		,		
est	8.2	Identify the t	tests and their	purposes below.						
XICITY			est(s)	Purpose of Test(s)		Submitted to NPDES Permitting Authority?		Date Submitted		
cal To						☐ Yes	□ No	01/18/2023		
ologic						☐ Yes	□ No	01/25/2022		
0						☐ Yes	□ No	01/28/2021		
				MATION (40 CFR 122.		_ 100				
	9.1		the analyses	reported in Section 7 (o	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	_	rmed by a cont			
-	9.2	Drovido info	rmation for one	ch contract laboratory o	conculting firm	n holow				
1	9.2	Provide inio	illiation for ear	Laboratory Nu			ry Number 2	Laboratory Number		
		Name of lab	oratory/firm	Laboratory Nu	mber i	Laborato	ry Number 2	Laboratory Number		
rmation		Name of lab	orator <b>y</b> /IIIII	Eurofins Pensacola						
Contract Analysis Information		Laboratory a	address	3355 McLemore Dr	ive					
Contract		Phone numb	per	(850) 474-1001						
		D. II								
		Pollutant(s)	analyzed	Form 2C Table A th	rough Table					

	Identification		NPDES Permit N AL000301			acility Name al Paper - Riverdale	Form Approved 03/05/19 OMB No. 2040-0004			
SECTIO	N-10. <sub>1</sub> CH	In Column 1 be each section, sp all applicants ar	pecify in Column 2 a e required to compl	ons of Form 2F that any attachments th	you have at you are	completed and are submi enclosing to alert the perr achments.	itting with your application. For nitting authority. Note that not			
		Colum	n 1			Column 2				
		✓ Section 1		w/ attachments (	e.g., respo	nses for additional outfalls	5)			
		Section 2		w/ attachments						
		☑ Section 3		w/ site drainage	map					
		☑ Section 4		w/ attachments						
		Section 5		w/ attachments						
Ħ		☑ Section 6		w/ attachments						
ateme		Section 7		Table A		w/ small business exer	nption request			
on St				Table B		w/ analytical results as	an attachment			
ificati				Table C		Table D				
Checklist and Certification Statement		✓ Section 8		w/attachments						
ist an		Section 9		w/attachments (e	g., respon	ses for additional contact	laboratories or firms)			
heckl		☑ Section 10								
0	10.2	accordance wit submitted. Base for gathering th complete. I am and imprisonme	enalty of law that the hasystem designed on my inquiry of e information, the in aware that there are ent for knowing viola	ed to assure that the person or person offormation submitto e significant penalt ations.	qualified pons who med is, to the ties for sub	ersonnel properly gather anage the system or thos e best of my knowledge a mitting false information,	my direction or supervision in and evaluate the information se persons directly responsible and belief, true, accurate, and including the possibility of fine			
		Name (print or t	ype first and last na	me)		Official title Mill Manager				
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Date signed

Signature

EPA Identification Number NPDES Permit Number Facility Name Outfall Number Form Approved 03/05/19
ALD000645457 AL0003018 International Paper - Riverdale 002/003

#### TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3)) 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 and requirements. **Average Daily Discharge Maximum Daily Discharge** Source of (specify units) (specify units) Information **Number of Storm Pollutant or Parameter Grab Sample Taken Grab Sample Taken** (new source/new **Events Sampled** Flow-Weighted Flow-Weighted **During First During First** dischargers only; use Composite Composite codes in instructions) 30 Minutes 30 Minutes Oil and grease <1.8 mg/L 1 Biochemical oxygen demand (BOD<sub>5</sub>) N/A 9.7 mg/L 1 Chemical oxygen demand (COD) 3. 55 mg/L N/A 1 Total suspended solids (TSS) 10 mg/L N/A 1 5. Total phosphorus 0.10 mg/L N/A 1 Total Kjeldahl nitrogen (TKN) 1.7 mg/L N/A 1 Total nitrogen (as N) N/A 1.7 mg/L 1 pH (minimum) 7.9 S.U. 1 pH (maximum) 7.9 S.U. 1

Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

#### TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))1

List each pollutant that is limited in an effluent limitation guideline (ELG) that 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.

	Maximum Dail (specify	y Discharge units)	Average Daily (specify	Discharge units)	Number of Storm	Source of Information (new source/new dischargers only; use codes in instructions)
Pollutant and CAS Number (if available)	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	
Adsorbable Organic Halogens (AOX)	0.28 mg/L	N/A		***	1	
2,4,5-Trichlorophenol	<0.0038 mg/L	N/A			1	
2,4,6-Trichlorophenol	<0.0027 mg/L	N/A			1	
Pentachlorophenol	<0.0014 mg/L	N/A	***	es ex	1	
Chloroform	<0.00090 mg/L	N/A			1	
2,3,7,8-tetrachlorodibenzofuran (TCDF)	<0.30 pg/L	N/A			1	
2,3,7,8-tetrachlorodibenzo-P-dioxin (TCDD)	<0.38 pg/L	N/A			1	
3,4,6-Trichloroguaiacol	Pending Results	N/A		40.40	1	
3,4,6-Trichlorocatechol	Pending Results	N/A			1	
3,4,5-Trichlroguaiacol	Pending Results	N/A		Amount	1	
3,4,5-Trichlorocatechol	Pending Results	N/A		er en	1	
Tetrachloroguaiacol	Pending Results	N/A	-		1	
Tetrachlorocatechol	Pending Results	N/A		414-	1	
Trichlorosyringol	Pending Results	N/A			1	
4,5,6-Trichloroguaiacol	Pending Results	N/A		••	1	
2,3,4,6-Tetrachlorophenol	<0.0016 mg/L	N/A		***	1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

# TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))1

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

	Maximum Dail (specify	y Discharge units)	Average Daily (specify		Number of Storm	Source of Information (new source/new dischargers only; use codes in instructions)
Pollutant and CAS Number (if available)	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	
Total Residual Chlorine	Pending Results	N/A	••		1	
Color, ADMI	Pending Results	N/A			1	
Fecal Coliform	Pending Results	N/A		90-10	1	
Total Organic Nitrogen (TON)	Pending Results	N/A			1	
Ammonia as Nitrogen, NH3-N	Pending Results	N/A	4.4		1	
Total Alpha	Pending Results	N/A			1	
Total Beta	Pending Results	N/A	***		1	
Total Radium	Pending Results	N/A		==	1	
Total Radium 226	Pending Results	N/A			1	
Sulfate (as SO4)	Pending Results	N/A	dia da	40	1	
Surfactants	Pending Results	N/A		**	1	
Total Aluminum	Pending Results	N/A	nich für		1	
Total Iron	Pending Results	N/A	60.00	www.	1	
Total Magnesium	Pending Results	N/A		44	1	
Total Zinc	Pending Results	N/A			1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

#### TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
08/29/2023	0.75-1 hour	1/4 inch	N/A	N/A	N/A

Provide a description of the method of flow measurement or estimate.

Because the discharge at this outfall is a controlled release, and stormwater is collected and stored for a period greater than 24 hours prior to discharge, a composite sample was not required.

EPA Identification Number NPDES Permit Number Facility Name Outfall Number Form Approved 03/05/19
ALD000645457 AL0003018 International Paper - Riverdale 004

TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))1

		Maximum Daily Discharge (specify units)		Average Daily (specify		Number of Storm	Source of Information
	Pollutant or Parameter	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only; use codes in instructions)
1.	Oil and grease	<1.8 mg/L				1	
2.	Biochemical oxygen demand (BOD <sub>5</sub> )	9.7 mg/L	N/A			1	
3.	Chemical oxygen demand (COD)	55 mg/L	N/A			1	
4.	Total suspended solids (TSS)	10 mg/L	N/A		••	1	
5.	Total phosphorus	0.10 mg/L	N/A			1	
6.	Total Kjeldahl nitrogen (TKN)	1.7 mg/L	N/A		**	1	
7.	Total nitrogen (as N)	1.7 mg/L	N/A	-		1	
0	pH (minimum)	7.9 S.U.		-		1	
8.	pH (maximum)	7.9 5.U.		6.4		1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

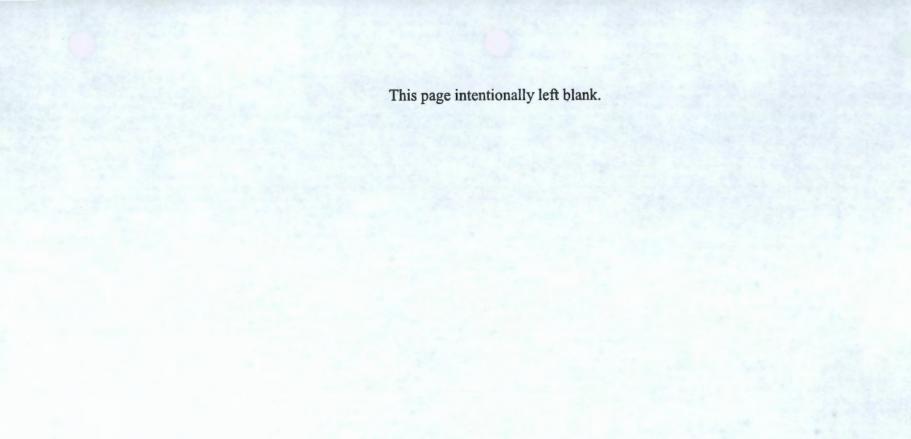
EPA Identification Number NPDES Permit Number Facility Name Outfall Number Form Approved 03/05/19
ALD000645457 AL0003018 International Paper - Riverdale 004 OMB No. 2040-0004

# TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))1

List each pollutant that is limited in an effluent limitation guideline (ELG) that 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.

	Maximum Dail (specify	y Discharge units)	Average Daily (specify		Number of Storm	Source of Information (new source/new dischargers only; use codes in instructions)
Pollutant and CAS Number (if available)	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	
Adsorbable Organic Halogens (AOX)	0.28 mg/L	N/A	414		1	
2,4,5-Trichlorophenol	<0.0038 mg/L	N/A			1	
2,4,6-Trichlorophenol	<0.0027 mg/L	N/A			1	
Pentachlorophenol	<0.0014 mg/L	N/A		**	1	
Chloroform	<0.00090 mg/L	N/A			1	
2,3,7,8-tetrachlorodibenzofuran (TCDF)	<0.30 pg/L	N/A	***	••	1	
2,3,7,8-tetrachlorodibenzo-P-dioxin (TCDD)	<0.38 pg/L	N/A		ques	1	
3,4,6-Trichloroguaiacol	Pending Results	N/A		44	1	
3,4,6-Trichlorocatechol	Pending Results	N/A			1	
3,4,5-Trichlroguaiacol	Pending Results	N/A	40.00	44	1	
3,4,5-Trichlorocatechol	Pending Results	N/A		<b>⊕</b>	1	
Tetrachloroguaiacol	Pending Results	N/A		B &	1	
Tetrachlorocatechol	Pending Results	N/A			1	
Trichlorosyringol	Pending Results	N/A	-	***	1	
4,5,6-Trichloroguaiacol	Pending Results	N/A			1	
2,3,4,6-Tetrachlorophenol	<0.0016 mg/L	N/A	97-0		1	

<sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



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# TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

	Maximum Dail (specify	y Discharge units)	Average Daily (specify		Number of Storm	Source of Information (new source/new dischargers only; use codes in instructions)
Pollutant and CAS Number (if available)	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	
Total Residual Chlorine	Pending Results	N/A	6-9		1	
Color, ADMI	Pending Results	N/A		40.00	1	
Fecal Coliform	Pending Results	N/A			1	
Total Organic Nitrogen (TON)	Pending Results	N/A	944	**	1	
Ammonia as Nitrogen, NH3-N	Pending Results	N/A	**	••	1	
Total Alpha	Pending Results	N/A	60-00		1	
Total Beta	Pending Results	N/A		***	1	
Total Radium	Pending Results	N/A			1	
Total Radium 226	Pending Results	N/A	No. 40		1	
Sulfate (as SO4)	Pending Results	N/A		44.00	1	
Surfactants	Pending Results	N/A	**	==	1	
Total Aluminum	Pending Results	N/A			1	
Total Iron	Pending Results	N/A			1	
Total Magnesium	Pending Results	N/A	9.00	der	1	
Total Zinc	Pending Results	N/A		**	1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

### TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
08/29/2023					
	0.75-1 hour	1/4 inch	N/A	N/A	N/A

Provide a description of the method of flow measurement or estimate.

Because the discharge at this outfall is a controlled release, and stormwater is collected and stored for a period greater than 24 hours prior to discharge, a composite sample was not required.

EPA Identification Number NPDES Permit Number Facility Name Outfall Number

ALD000645457 AL0003018 International Paper - Riverdale 005

#### TABLE A. CONVENTIONAL AND NON CONVENTIONAL PARAMETERS (40 CFR 122.26(c)(1)(i)(E)(3))1 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 and requirements, **Maximum Daily Discharge Average Daily Discharge** Source of (specify units) (specify units) Information **Number of Storm Pollutant or Parameter Grab Sample Taken Grab Sample Taken** (new source/new Flow-Weighted Flow-Weighted **Events Sampled During First During First** dischargers only; use Composite Composite 30 Minutes 30 Minutes codes in instructions) Oil and grease <1.5 mg/L 1 Biochemical oxygen demand (BOD<sub>5</sub>) 3.4 mg/L N/A 1 3. Chemical oxygen demand (COD) 25 mg/L N/A 1 Total suspended solids (TSS) 19 mg/L N/A 1 5. Total phosphorus 0.14 mg/L N/A 1 6. Total Kjeldahl nitrogen (TKN) 0.96 mg/L N/A 1 Total nitrogen (as N) 1.4 mg/L N/A 1 pH (minimum) 7.4 S.U. 1 pH (maximum) 1 7.4 S.U.

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

#### TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))1

List each pollutant that is limited in an effluent limitation guideline (ELG) that 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 Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm	Source of Information
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only; use codes in instructions)
Adsorbable Organic Halogens (AOX)	0.10 mg/L	N/A			1	
2,4,5-Trichlorophenol	<0.0035 mg/L	N/A			1	
2,4,6-Trichlorophenol	<0.0024 mg/L	N/A			1	
Pentachlorophenol	<0.0013 mg/L	N/A		-	1	
Chloroform	0.0027 mg/L	N/A			1	
2,3,7,8-tetrachlorodibenzofuran (TCDF)	<0.28 pg/L	N/A			1	
2,3,7,8-tetrachlorodibenzo-P-dioxin (TCDD)	<0.46 pg/L	N/A			1	
3,4,6-Trichloroguaiacol	Pending Results	N/A			1	
3,4,6-Trichlorocatechol	Pending Results	N/A			1	
3,4,5-Trichloroguaiacol	Pending Results	N/A			1	
3,4,5-Trichlorocatechol	Pending Results	N/A			1	
Tetrachloroguaiacol	Pending Results	N/A			1	
Tetrachlorocatechol	Pending Results	N/A			1	
Trichlorosyringol	Pending Results	N/A			1	
4,5,6-Trichloroguaiacol	Pending Results	N/A			1	
2,3,4,6-Tetrachlorophenol	<0.0015 mg/L	N/A			1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

### TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))1

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm	Source of Information
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only; use codes in instructions)
Total Residual Chlorine	Pending Results	N/A			1	
Color, ADMI	Pending Results	N/A			1	
Fecal Coliform	Pending Results	N/A			1	
Total Organic Nitrogen (TON)	Pending Results	N/A			1	
Ammonia as Nitrogen, NH3-N	Pending Results	N/A			1	
Total Alpha	Pending Results	N/A			1	
Total Beta	Pending Results	N/A			1	
Total Radium	Pending Results	N/A			1	
Total Radium 226	Pending Results	N/A			1	
Sulfate (as SO4)	Pending Results	N/A	***		1	
Surfactants	Pending Results	N/A			1	
Total Aluminum	Pending Results	N/A			1	
Total Iron	Pending Results	N/A			1	
Total Magnesium	Pending Results	N/A			1	
Total Zinc	Pending Results	N/A			1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number NPDES Permit Number Facility name Outfall Number Form Approved 03/05/19
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#### TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
08/29/2023					
	0.75-1 hour	1/4 inch	N/A	N/A	N/A

Provide a description of the method of flow measurement or estimate.

Because the discharge at this outfall is a controlled release, and stormwater is collected and stored for a period greater than 24 hours prior to discharge, a composite sample was not required.

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	BLE A. CONVENTIONAL AND NON CON must provide the results of at least one ar				See instructions for a	dditional details and requ	irements
Tou	u must provide the results of at least one am	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)			Source of Information
	Pollutant or Parameter	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Number of Storm Events Sampled	(new source/new dischargers only; use codes in instructions)
1.	Oil and grease	<1.5 mg/L		••		1	
2.	Biochemical oxygen demand (BOD <sub>5</sub> )	2.1 mg/L	N/A			1	
3.	Chemical oxygen demand (COD)	29 mg/L	N/A			1	
4.	Total suspended solids (TSS)	<5.0 mg/L	N/A			1	
5.	Total phosphorus	0.28 mg/L	N/A			1	
6.	Total Kjeldahl nitrogen (TKN)	0.75 mg/L	N/A			1	
7.	Total nitrogen (as N)	0.75 mg/L	N/A			1	
	pH (minimum)	7.7 S.U.				1	
8.	pH (maximum)	7.7 S.U.				1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

#### TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))1

List each pollutant that is limited in an effluent limitation guideline (ELG) that 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 Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm	Source of Information
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only; use codes in instructions)
Adsorbable Organic Halogens (AOX)	0.079 mg/L	N/A			1	
2,4,5-Trichlorophenol	<0.0035 mg/L	N/A			1	
2,4,6-Trichlorophenol	<0.0024 mg/L	N/A			1	
Pentachlorophenol	<0.0013 mg/L	N/A			1	
Chloroform	<0.00090 mg/L	N/A		<b>40.49</b>	1	
2,3,7,8-tetrachlorodibenzofuran (TCDF)	<0.26 pg/L	N/A			1	
2,3,7,8-tetrachlorodibenzo-P-dioxin (TCDD)	<0.54 pg/L	N/A			1	
3,4,6-Trichloroguaiacol	Pending Results	N/A	-0-4	nto tipe	1	
3,4,6-Trichlorocatechol	Pending Results	N/A			1	
3,4,5-Trichlroguaiacol	Pending Results	N/A			1	
3,4,5-Trichlorocatechol	Pending Results	N/A		<b>0</b> -0	1	
Tetrachloroguaiacol	Pending Results	N/A			1	
Tetrachlorocatechol	Pending Results	N/A		200	1	
Trichlorosyringol	Pending Results	N/A			1	
4,5,6-Trichloroguaiacol	Pending Results	N/A	••	**	1	
2,3,4,6-Tetrachlorophenol	<0.0015 mg/L	N/A	••		1	

Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

#### TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

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Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm	Source of Information
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only; use codes in instructions)
otal Residual Chlorine	Pending Results	N/A			1	
Color, ADMI	Pending Results	N/A			1	
ecal Coliform	Pending Results	N/A			1	
otal Organic Nitrogen (TON)	Pending Results	N/A			1	
Ammonia as Nitrogen, NH3-N	Pending Results	N/A		40 th	1	
otal Alpha	Pending Results	N/A	***	**	1	
otal Beta	Pending Results	N/A		**	1	
otal Radium	Pending Results	N/A		AS San	1	
Total Radium 226	Pending Results	N/A		ad-th.	1	
Sulfate (as SO4)	Pending Results	N/A			1	
Surfactants	Pending Results	N/A			1	
Total Aluminum	Pending Results	N/A			1	
Total Iron	Pending Results	N/A	***	**	1	
Fotal Magnesium	Pending Results	N/A			1	
Total Zinc	Pending Results	N/A			1	
						1

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Identification Number NPDES Permit Number Facility name Outfall Number Form Approved 03/05/19
ALD000645457 AL0003018 International Paper - Riverdale 006 OMB No. 2040-0004

#### TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
08/29/2023					
	0.75-1 hour	1/4 inch	N/A	N/A	N/A

Provide a description of the method of flow measurement or estimate.

Because the discharge at this outfall is a controlled release, and stormwater is collected and stored for a period greater than 24 hours prior to discharge, a composite sample was not required.

#### U.S. EPA Form 2F Item 4.3:

#### Structural control measures:

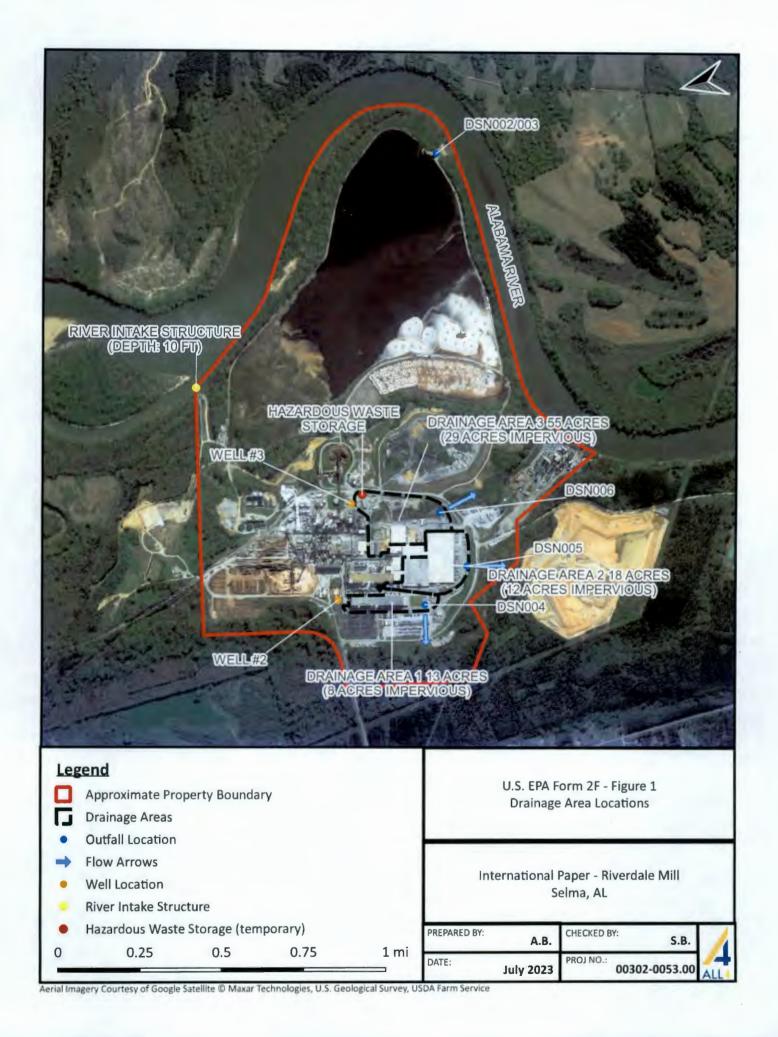
- Outfalls are equipped with valves that remain closed to collect stormwater from the Mill. The stormwater that is collected behind the valves is visually inspected for oil or other contamination prior to release. If contamination exists, the stormwater is not released until contamination is removed.
- The vehicular fuel area has secondary containment capable of containing 110% of the largest tank and stormwater from this area is routed to the effluent treatment system.
- The fire pump diesel fuel storage tank is contained in an enclosed, non-valved concrete containment capable of containing the total contents of the tank.

#### Non-structural control measures:

- Raw materials, manufactured products, waste materials, and by-products entering or exiting the Mill by truck are transported over Mill roads that pass through the area served by the outfall.
- All tank trucks carrying liquids onto the Mill roads are visually inspected for leaks prior to entering or exiting through the Mill gates.
- Stormwater is inspected and not released if potential contamination is observed.

# U.S. EPA Form 2F, Section 5 Item 5.2 Testing Information International Paper - Riverdale, AL Mill

Outfall Number	Description of Testing Method Used	Dates of Testing	Onsite Drainage Points Directly Observed During Test
004	Stormwater collection basins 004, 005 and 006 were monitored on 12/26/2017 during dry weather for non-		
005	stormwater drainage and were dry. Ditches and swells leading to the unnamed tributary of the Alabama River	12/26/2017	Stormwater Collection Basins
006	where outfalls 004,005 and 006 drain were monitored during dry weather and were also found to be dry.		





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# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703

Generated 8/18/2023 4:17:56 PM

# JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2C Table A

# JOB NUMBER

400-241666-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

Page 1 of 21





# **Eurofins Pensacola**

### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

# **Authorization**

Sent W Gene 8/18/

Generated 8/18/2023 4:17:56 PM

Authorized for release by Isabel Enfinger, Project Manager I isabel.enfinger@et.eurofinsus.com
Designee for Cheyenne Whitmire, Project Manager II

Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

# 2

# 2

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<b>C</b>

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#### **Case Narrative**

Client: International Paper Company

Job ID: 400-241666-1 SDG: Form 2C Table A

2

Job ID: 400-241666-1

**Laboratory: Eurofins Pensacola** 

**Narrative** 

Job Narrative 400-241666-1

\_

Comments

No additional comments.

Receipt

The samples were received on 8/8/2023 3:10 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8° C.

**General Chemistry** 

Method 350.1: The following sample was diluted to bring the concentration of target analytes within the calibration range: DSN002-003 FINAL EFFLUENT COMP (400-241666-1). Elevated reporting limits (RLs) are provided.

Method 410.4: The following sample was diluted to bring the concentration of target analytes within the calibration range: DSN002-003 FINAL EFFLUENT COMP (400-241666-1). Elevated reporting limits (RLs) are provided.

Method 410.4: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-637548 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 415.1: Due to the high concentration of Total Organic Carbon (TOC), the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 400-636808 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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# **Detection Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241666-1

Lab Sample ID: 400-241666-1

Lab Sample ID: 400-241666-2

SDG: Form 2C Table A

# lient Sample ID: DSN002-003 FINAL EFFLUENT COMP

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	22		5.0	5.0	mg/L	1	_	160.2	Total/NA
Ammonia	3.1		0.10	0.048	mg/L	2		350.1	Total/NA
Biochemical Oxygen Demand	12		2.0	2.0	mg/L	1		405.1	Total/NA
Chemical Oxygen Demand (COD)	180	F1	20	13	mg/L	2		410.4	Total/NA
Total Organic Carbon (TOC)	100		1.0	0.50	mg/L	1		415.1	Total/NA

# Client Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
рН	8.4	HF			S.U.	1		150.1	Total/NA
Temperature	25.0	HF			Degrees C	1		150.1	Total/NA















# **Sample Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241666-1 SDG: Form 2C Table A

1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-241666-1	DSN002-003 FINAL EFFLUENT COMP	Water	08/08/23 08:45	08/08/23 15:10
400-241666-2	DSN002-003 FINAL EFFLUENT GRAB	Water	08/08/23 09:12	08/08/23 15:10

4

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14

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241666-1

SDG: Form 2C Table A

lient Sample ID: DSN002-003 FINAL EFFLUENT COMP

Date Collected: 08/08/23 08:45 Date Received: 08/08/23 15:10

Lab Sample ID: 400-241666-1

**Matrix: Water** 

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (EPA 160.2)	22	277	5.0	5.0	mg/L			08/09/23 07:38	1
Ammonia (EPA 350.1)	3.1		0.10	0.048	mg/L			08/15/23 14:41	2
Biochemical Oxygen Demand (EPA 405.1)	12		2.0	2.0	mg/L			08/09/23 14:38	1
Chemical Oxygen Demand (COD) (EPA 410.4)	180	F1	20	13	mg/L			08/18/23 14:46	2
Total Organic Carbon (TOC) (EPA 415.1)	100		1.0	0.50	mg/L			08/11/23 16:13	1.

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241666-1

SDG: Form 2C Table A

lient Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Lab Sample ID: 400-241666-2

**Matrix: Water** 

Date Collected: 08/08/23 09:12 Date Received: 08/08/23 15:10

**General Chemistry** 

Analyte

S.U. pH (EPA 150.1) 8.4 HF 08/09/23 08:30 Temperature (EPA 150.1) 25.0 HF Degrees C 08/09/23 08:30

# **Definitions/Glossary**

Client: International Paper Company

SDG: Form 2C

Job ID: 400-241666-1 SDG: Form 2C Table A

#### ualifiers

General Chemistry	General	Chemi	stry
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Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit

MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEGNegative / AbsentPOSPositive / PresentPQLPractical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

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)

TNTC Too Numerous To Count

# **QC Association Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241666-1 SDG: Form 2C Table A

Prep Batch
Prep Batch
Prep Batch
Prep Batch
Prep Batch
13

# eneral Chemistry

### Analysis Batch: 636348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241666-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	160.2	
MB 400-636348/1	Method Blank	Total/NA	Water	160.2	
LCS 400-636348/2	Lab Control Sample	Total/NA	Water	160.2	

### Analysis Batch: 636446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241666-2	DSN002-003 FINAL EFFLUENT GRAB	Total/NA	Water	150.1	
LCS 400-636446/4	Lab Control Sample	Total/NA	Water	150.1	

#### Analysis Batch: 636487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241666-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	405.1	
USB 400-636487/1	Method Blank	Total/NA	Water	405.1	
LCS 400-636487/2	Lab Control Sample	Total/NA	Water	405.1	

### Analysis Batch: 636808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241666-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	415.1	
MB 400-636808/38	Method Blank	Total/NA	Water	415.1	
MB 400-636808/6	Method Blank	Total/NA	Water	415.1	
LCS 400-636808/39	Lab Control Sample	Total/NA	Water	415.1	
LCSD 400-636808/40	Lab Control Sample Dup	Total/NA	Water	415.1	
MRL 400-636808/5	Lab Control Sample	Total/NA	Water	415.1	

#### Analysis Batch: 637092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241666-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	350.1	
MB 400-637092/12	Method Blank	Total/NA	Water	350.1	
LCS 400-637092/13	Lab Control Sample	Total/NA	Water	350.1	
MRL 400-637092/6	Lab Control Sample	Total/NA	Water	350.1	

### Analysis Batch: 637118

Lab Sample ID	Cilent Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-637118/12	Method Blank	Total/NA	Water	350.1	
LCS 400-637118/13	Lab Control Sample	Total/NA	Water	350.1	
MRL 400-637118/6	Lab Control Sample	Total/NA	Water	350.1	

### Analysis Batch: 637548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241666-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	410.4	
MB 400-637548/5	Method Blank	Total/NA	Water	410.4	
LCS 400-637548/6	Lab Control Sample	Total/NA	Water	410.4	
MRL 400-637548/7	Lab Control Sample	Total/NA	Water	410.4	

Job ID: 400-241666-1 SDG: Form 2C Table A

# ethod: 150.1 - pH (Electrometric)

Lab Sample ID: LCS 400-636446/4 **Matrix: Water** 

Analysis Batch: 636446

Spike **Analyte** Added pH 7.00

Prep Type: Total/NA

LCS LCS %Rec Result Qualifier Unit %Rec Limits S.U. 98.6 - 101. 7.0 100

### Method: 160.2 - Solids, Total Suspended (TSS)

Lab Sample ID: MB 400-636348/1

Matrix: Water

Analysis Batch: 636348

MR MR

Analyte Total Suspended Solids

Result Qualifier < 0.50

RL 0.50

Spike Added

259

**MDL** Unit 0.50 mg/L

Unit

mg/L

LCS LCS

258

Result Qualifier

Prepared

Analyzed 08/09/23 07:38

Prep Type: Total/NA

Client Sample ID: Method Blank

Dil Fac

Client Sample ID: Lab Control Sample

%Rec

100

%Rec

Limits

79-124

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-636348/2 **Matrix: Water** 

Analysis Batch: 636348

Total Suspended Solids

Prep Type: Total/NA

### Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 400-637092/12

Matrix: Water

Analysis Batch: 637092

MR MR

Analyte Ammonia Result Qualifier < 0.024

RL 0.050

**MDL** Unit 0.024 mg/L Prepared

Analyzed

08/15/23 14:41

Prep Type: Total/NA

Prep Type: Total/NA

Dil Fac

Lab Sample ID: LCS 400-637092/13

**Matrix: Water** 

Analysis Batch: 637092

Analyte Ammonia

Spike Added

3.00

LCS LCS Result Qualifier 3.01

Unit mg/L

D %Rec 100

%Rec Limits

90 - 110

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Lab Sample ID: MRL 400-637092/6

Lab Sample ID: MB 400-637118/12

Matrix: Water

Analysis Batch: 637092

**Analyte** Ammonia

Spike Added 0.0500

MRL MRL Result Qualifier 0.0570

Unit mg/L

%Rec Limits 50 - 150

%Rec

Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 637118

MB MB

Analyte Ammonia

Result Qualifier < 0.024

RL 0.050

**MDL** Unit 0.024 mg/L Prepared

Analyzed 08/15/23 16:01

Dil Fac

Eurofins Pensacola

ethod: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 400-637118/13 Client Sample ID: Lab Control Sample **Matrix: Water** 

Prep Type: Total/NA

Analysis Batch: 637118

Analysis Batch: 637118

**Matrix: Water** 

Analyte

Ammonia

Analyte

%Rec

%Rec

114

D

Spike LCS LCS Analyte Added Result Qualifier Unit D %Rec Limits Ammonia 3.00 90 - 110 3.06 mg/L 102

Spike

Added

0.0500

MRL MRL

0.0570

Result Qualifier

**MDL** Unit

Unit

mg/L

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

%Rec

Limits 50 - 150

Prep Type: Total/NA

Method: 405.1 - BOD, 5-Day

Lab Sample ID: USB 400-636487/1 Matrix: Water

Lab Sample ID: MRL 400-637118/6

Client Sample ID: Method Blank Prep Type: Total/NA

Analysis Batch: 636487

Biochemical Oxygen Demand

USB USB Result Qualifier

MB MB

<2.0

Prepared Analyzed Dil Fac 2.0 mg/L 08/09/23 14:10

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-636487/2

Matrix: Water

Analysis Batch: 636487

Spike LCS LCS %Rec Added Result Qualifier Unit %Rec Limits Analyte D Biochemical Oxygen Demand 198 85 - 115 203 mg/L 103

RL

2.0

Method: 410.4 - COD

Lab Sample ID: MB 400-637548/5 Client Sample ID: Method Blank

**Matrix: Water** 

Analysis Batch: 637548

Chemical Oxygen Demand (COD)

Prep Type: Total/NA

mg/L

RL MDL Unit Prepared Analyzed Dil Fac Result Qualifier Analyte 08/18/23 11:28 Chemical Oxygen Demand (COD) <64 10 6.4 mg/L

Lab Sample ID: LCS 400-637548/6 Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA Analysis Batch: 637548

Spike LCS LCS %Rec Added Result Qualifier Unit %Rec Limits

Chemical Oxygen Demand (COD) 50.0 53.3 mg/L 107 90 - 110 Client Sample ID: Lab Control Sample Lab Sample ID: MRL 400-637548/7 Prep Type: Total/NA

**Matrix: Water** Analysis Batch: 637548 MRL MRL %Rec Spike Limits Analyte Added Result Qualifier Unit D %Rec

13.0

10.0

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130

50 - 150

RL

1.0

RL

1.0

19.4

MRL MRL

1.11

Result Qualifier

**MDL** Unit

0.50 mg/L

MDL Unit

0.50 mg/L

lethod: 415.1 - TOC

Lab Sample ID: MB 400-636808/38

Client Sample ID: Method Blank

**Matrix: Water** Analysis Batch: 636808

Total Organic Carbon (TOC)

Prep Type: Total/NA

Analyzed

08/11/23 00:06

MB MB Result Qualifier Analyte

08/11/23 08:42

Prepared

Prepared

Lab Sample ID: MB 400-636808/6 **Matrix: Water** 

Client Sample ID: Method Blank Prep Type: Total/NA

Analysis Batch: 636808

Analyte

MB MB

< 0.50

< 0.50

Result Qualifier

Analyzed Dil Fac

85 - 115

Lab Sample ID: LCS 400-636808/39

Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Dil Fac** 

**Matrix: Water** 

Analysis Batch: 636808

Total Organic Carbon (TOC)

Total Organic Carbon (TOC)

LCS LCS %Rec Spike Limits Added %Rec Result Qualifier Unit

mg/L

mg/L

Lab Sample ID: LCSD 400-636808/40

**Matrix: Water** 

Analysis Batch: 636808

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

97

RPD LCSD LCSD %Rec Spike RPD Limit Result Qualifier D %Rec Limits Analyte Added Unit 85 - 115 Total Organic Carbon (TOC) 20.0 19.8 mg/L

20.0

Spike

Added

1.00

Lab Sample ID: MRL 400-636808/5

**Matrix: Water** 

Analyte

Analysis Batch: 636808

Total Organic Carbon (TOC)

Client Sample ID: Lab Control Sample Prep Type: Total/NA

50 - 150

%Rec %Rec Limits Unit

111

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241666-1 SDG: Form 2C Table A

lient Sample ID: DSN002-003 FINAL EFFLUENT COMP

Date Collected: 08/08/23 08:45 Date Received: 08/08/23 15:10

Lab Sample ID: 400-241666-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	160.2	10001	1	100 mL	100 mL	636348	08/09/23 07:38	-	EET PEN
Total/NA	Analysis	350.1		2	10 mL	10 mL	637092	08/15/23 14:41	VB	EET PEN
Total/NA	Analysis	405.1		1	300 mL	300 mL	636487 Completed:	08/09/23 14:38 08/14/23 09:50		EET PEN
Total/NA	Analysis	410.4		2	2 mL	2 mL	637548	08/18/23 14:46	CJK	EET PEN
Total/NA	Analysis	415.1		1	50 mL	50 mL	636808	08/11/23 16:13	DEK	EET PEN

Client Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Date Collected: 08/08/23 09:12 Date Received: 08/08/23 15:10

Lab Sample ID: 400-241666-2 Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	150.1		1			636446	08/09/23 08:30	SF	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A Date Received: N/A

Lab Sample ID: MB 400-636348/1 **Matrix: Water** 

Initial Batch Batch Dil Final Batch Prepared Amount Number or Analyzed Analyst Method Factor Amount Lab **Prep Type** Type Run 08/09/23 07:38 HA EET PEN 1000 mL 100 mL 636348 160.2 Total/NA Analysis

Client Sample ID: Method Blank

Date Collected: N/A Date Received: N/A

Lab Sample ID: MB 400-636808/38

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	415.1		1	50 mL	50 mL	636808	08/11/23 08:42	DEK	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A Date Received: N/A

Lab Sample ID: MB 400-636808/6

Matrix: Water

-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	415.1		1	50 mL	50 mL	636808	08/11/23 00:06	DEK	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A

Lab Sample ID: MB 400-637092/12

**Matrix: Water** 

Date Received: N/A

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	637092	08/15/23 14:41	VB	EET PEN

	erdale Mill								b ID: 400 G: Form	2C Table /
lient Samp Date Collected Date Received:	: N/A	hod Blank					Lab Sai	mple ID: ME		37118/12 trix: Wate
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	637118	08/15/23 16:01		EET PEN
Client Samp	le ID: Met	hod Blank					Lab Sa	mple ID: N	B 400-	637548/
Date Collected										trix: Wate
Date Received:									· · ·	uix. Wate
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	410.4		1	2 mL	2 mL	637548	08/18/23 11:28	CJK	EET PEN
Client Samp	le ID: Met	hod Blank					I ah Sar	nple ID: US	B 400-	636487/
Date Collected: Date Received:	: N/A	nou Diank					Lab Gai	ilpic ib. oc		trix: Wate
ble	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	405.1		1	300 mL	300 mL	636487	08/09/23 14:10	SRC	EET PEN
							Completed:	08/14/23 09:50	1	
Prep Type Total/NA	Type Analysis	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed		
	ruidiyolo	160.2		1	100 mL	100 mL	636348	08/09/23 07:38	Analyst HA	Lab EET PEN
Client Samp Date Collected Date Received:	le ID: Lab : N/A		ample	1	100 mL	100 mL			HA S 400-	EET PEN 636446/4
Date Collected:	le ID: Lab : N/A		ample	Dil	100 mL	100 mL		08/09/23 07:38	HA S 400-	EET PEN
Date Collected:	le ID: Lab : N/A : N/A	Control Sa	ample Run				Lab Sar	08/09/23 07:38 mple ID: LC	HA S 400-I	EET PEN 636446/4 trix: Wate
Date Collected: Date Received:	le ID: Lab : N/A : N/A Batch	Control Sa		Dil	Initial	Final	Lab Sar	08/09/23 07:38  mple ID: LC	HA S 400-I Ma	EET PEN 636446/4 trix: Wate
Date Collected: Date Received: Prep Type	le ID: Lab : N/A : N/A  Batch Type Analysis le ID: Lab : N/A	Batch Method	Run	Dil Factor	Initial	Final	Batch Number 636446	08/09/23 07:38  mple ID: LC  Prepared or Analyzed	Analyst SF S 400-	EET PEN 636446/4 trix: Wate  Lab EET PEN 636487/2
Prep Type Total/NA Client Samp	le ID: Lab : N/A : N/A  Batch Type Analysis le ID: Lab : N/A	Batch Method	Run	Dil Factor	Initial	Final	Batch Number 636446	08/09/23 07:38  mple ID: LC  Prepared or Analyzed  08/09/23 08:30	Analyst SF S 400-	EET PEN 636446/4 trix: Wate  Lab EET PEN 636487/2
Prep Type Total/NA Client Samp	le ID: Lab : N/A : N/A  Batch Type Analysis le ID: Lab : N/A	Batch Method 150.1	Run	Dil Factor	Initial Amount	Final Amount	Batch Number 636446 Lab Sar	O8/09/23 07:38  mple ID: LC  Prepared or Analyzed 08/09/23 08:30  mple ID: LC  Prepared or Analyzed	Analyst SF S 400-I Ma	EET PEN 636446/4 trix: Wate
Prep Type Total/NA Client Samp Date Collected: Date Received:	le ID: Lab : N/A : N/A  Batch Type Analysis  le ID: Lab : N/A : N/A Batch	Batch Method 150.1  Control Sa	Run	Pactor 1	Initial Amount	Final Final	Batch Number 636446 Lab Sar	Prepared or Analyzed O8/09/23 08:30  Prepared or Analyzed O8/09/23 08:30  Prepared or Analyzed O8/09/23 14:10	Analyst SF Analyst SRC	EET PEN 636446/4 trix: Wate  Lab EET PEN 636487/2 trix: Wate
Prep Type Total/NA Client Samp Date Collected: Date Received: Prep Type	le ID: Lab : N/A Batch Type Analysis le ID: Lab : N/A Batch Type Analysis	Batch Method 150.1  Control Sa  Batch Method 405.1	Run ample	Dill Factor	Initial Amount Initial Amount	Final Amount Final Amount	Batch Number 636446 Lab Sar  Batch Number 636487 Completed:	Prepared or Analyzed Or	Analyst SRC Analyst SRC	Lab EET PEN 636487/2 trix: Wate Lab EET PEN 636487/2 trix: Wate EET PEN 636808/3
Prep Type Total/NA  Client Sampl Date Collected: Prep Type Total/NA  Client Sampl Date Collected: Client Sampl Date Collected: Client Sampl Date Collected:	le ID: Lab : N/A Batch Type Analysis le ID: Lab : N/A Batch Type Analysis	Batch Method 150.1  Control Sa  Batch Method 405.1	Run ample	Dill Factor 1	Initial Amount Initial Amount 1 mL	Final Amount Final Amount 1 mL	Batch Number 636446 Lab Sar  Batch Number 636487 Completed:	Prepared or Analyzed O8/09/23 08:30  Prepared or Analyzed O8/09/23 08:30  Prepared or Analyzed O8/09/23 14:10 08/14/23 09:50  Ple ID: LCS	Analyst SRC Analyst SRC	Lab EET PEN 636487/2 trix: Wate
Prep Type Total/NA  Client Sampl Date Collected: Prep Type Total/NA  Client Sampl Date Collected: Client Sampl Date Collected: Client Sampl Date Collected:	le ID: Lab : N/A Batch Type Analysis le ID: Lab : N/A Batch Type Analysis	Batch Method 150.1  Control Sa  Batch Method 405.1	Run ample	Dill Factor	Initial Amount Initial Amount	Final Amount Final Amount	Batch Number 636446 Lab Sar  Batch Number 636487 Completed:	08/09/23 07:38  mple ID: LC  Prepared or Analyzed 08/09/23 08:30  mple ID: LC  Prepared or Analyzed 08/09/23 14:10 08/14/23 09:50	Analyst SRC Analyst SRC	Lab EET PEN 636487/2 trix: Water Lab EET PEN 636487/2 trix: Water Lab EET PEN 636808/3

Eurofins Pensacola

lient Sam Date Collecte Date Receive	d: N/A	Control S	ample			Į.	_ab Sam	ple ID: LC		37092/13 trix: Wate
Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	637092	08/15/23 14:41	VB	EET PEN
Client Sam Date Collecte Date Receive	d: N/A	Control S	ample	i i		l	Lab San	ple ID: LC		37118/1: trix: Wate
nterer .	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	637118	08/15/23 16:01	VB	EET PEN
Client Sam Date Collecte Date Receive	d: N/A	Control	umpic				Lub Gui	mple ID: LC		trix: Wate
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	410.4		1	2 mL	2 mL	637548	08/18/23 11:28	CJK	EET PEN
Client Sam Date Collecte Date Receive	d: N/A	Control S	ample D	up Dil	Initial	La	Batch	Prepared		36808/4 trix: Wate
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	415.1		1	50 mL	50 mL	636808	08/11/23 09:13	DEK	EET PEN
Client Sam Date Collecte Date Receive	d: N/A	Control S	ample				Lab Sar	mple ID: MF		636808/ trix: Wate
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	415.1		1	50 mL	50 mL	636808	08/10/23 23:47	DEK	EET PEN
Client Samp	d: N/A	Control S	ample				Lab Sar	nple ID: MF		637092/ trix: Wate
				Dil	Initial	Final	Batch	Prepared		
	Batch	Batch		Dil	minal	I III GI				
Date Conecte Date Received	Batch Type	Batch Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab

**Matrix: Water** 

Lab

EET PEN

Dil

**Factor** 

Run

Initial

Amount

100 mL

Final

**Amount** 

100 mL

Batch

Number

637118

Prepared

08/15/23 16:01 VB

or Analyzed Analyst

Date Collected: N/A
Date Received: N/A

**Prep Type** 

Total/NA

Batch

350.1

Method

Batch

Type

Analysis

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241666-1

SDG: Form 2C Table A

lient Sample ID: Lab Control Sample

Date Collected: N/A Date Received: N/A

Lab Sample ID: MRL 400-637548/7

**Matrix: Water** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	410.4		1	2 mL	2 mL	637548	08/18/23 11:28	CJK	EET PEN

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

#### **Laboratory References:**

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

# **Method Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241666-1 SDG: Form 2C Table A

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#### **Protocol References:**

EPA = US Environmental Protection Agency

#### Laboratory References:

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

# **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241666-1 SDG: Form 2C Table A

# aboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	09-01-23
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

3355 McLemore Drive Pensacola, FL 32514

# **Chain of Custody Record**

	euro	fins
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Environment Testing

Client Information	Sampler GRALA C	Sampler CHEARSON Lab PM Whitmire, Cheye		Cheyenne l	Cheyenne R		COC No 400-121852-41785.1
Client Contact Carla Pearson	Phone 334-41			ne.Whitmire@et.eurofinsus.com		State of Origin.	Page Page 1 of 1
Company International Paper Company		PWSID				Requested	Job#
ddress	Due Date Requested:		1		Allaysis	Kequesteu	Preservation Codes:
01 County Road 78	TAT Requested (days):		- 1				A - HCL M - Hexane N - None
Selma	PK/	KD .	11			K-341-22	B - NaOH O - AsNeO2 C - Zn Acetate D - Ne2O4S
tate, Zip NL, 36703	Compliance Project: Δ	Yes A No					E - NaHSO4 Q - Na2SO3
hone 34-418-5236(Tel)	PO#- 16969625		1			Trans.	G - Amchior S - H2SO4
mail	W0 #:	<del> </del>	OK.NO)			400-241666 COC	i - Ice U - Acetone
Carla.Pearson@ipaper.com roject Name	Project#		0,80				K-EDTA W-pH 4-5
orm 2C Table A	40016047		Die C	7	ernti		Z - other (specify)
11- PIVERDAUE HILL	- (PIDALE) SSOW#		Sam		6-Day Temperature		Other:
		Campie	atrix	0.4			
	Sar	1,000	solid,	350.1, 410.4 415.1 - TOC	405.1 - BOD, 180.2 - TSS 150.1 - pH &		Special Instructions/Note:
ample Identification	Sample Date Ti	me G=grab) <sub>BT×∏s</sub>		350	150		Special Instructions/Note:
DENONS - ADS FINE	AL EFFWAIT 8 0823 8	Peservarion	/ater	X	No. 19		
DAYACE-DOS FIRM	FUE FUEL OUGE		MER	1 V			
11	10	× W	II	117			
11			"	+++			
	11 9		11				010-1-1
( (	11 9	12 6	'				96°F/7.6
ossible Hazard Identification			5	Sample Disp	osal ( A fee may	be assessed if samples are re	
Non-Hazard Flammable Skin I		Radiological		Return	To Client Luctions/QC Require	Disposal By Lab	Archive For Months
					actions/QC Require	AFIER ITIU	HIH, DISPOSE
mpty Kit Relinquished by:	Date		Time		00	Method of Shipment	1 250
Admidit	808 23		P'DAU		My Sal	- Sayer 8 00	123 9:35 SHER
Relinquished by	Date/Time	Comp	any	Received	n Mari	Date/Doge / S	123 103 Company
delinquisted by Mose	Date/Time:/8/23	1510 Comp	any	Received by		Date The 8	123 1570 Company 218
Custody Seals Intact: Custody Seal No.:	9/0/20	1010		Cooler Tem	perature(s) °C and Othe	er Remarks	2010
Δ Yes Δ No	and the second					418 C	110

8/18/202

Page 20 of 21



# **Login Sample Receipt Checklist**

Client: International Paper Company

Containers requiring zero headspace have no headspace or bubble is

Job Number: 400-241666-1

SDG Number: Form 2C Table A

List Source: Eurofins Pensacola

Login Number: 241666

List Number: 1

Creator: Perez, Trina M		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.8°C IR-10
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	

N/A

True

True

N/A



















<6mm (1/4").

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

# ANALYTICAL REPORT

# PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703

Generated 9/14/2023 3:54:05 PM Revision 1

# JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2C Table B Sections 1-5

# **JOB NUMBER**

400-241663-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514



# **Eurofins Pensacola**

### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

# **Authorization**

Generated 9/14/2023 3:54:05 PM Revision 1

Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

1

Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-241663-1 SDG: Form 2C Table B Sections 1-5

# **Table of Contents**

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QC Association	17
QC Sample Results	19
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#### **Case Narrative**

Client: International Paper Company
Project/Site: Riverdale Mill

Job ID: 400-241663-1 SDG: Form 2C Table B Sections 1-5

Job ID: 400-241663-1

Laboratory: Eurofins Pensacola

**Narrative** 

Job Narrative 400-241663-1

#### Receipt

The samples were received on 8/8/2023 3:10 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2° C.

#### GC/MS VOA

Method 624.1: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 400-636341 was outside control limits. Sample matrix interference is suspected.

Method 624.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-636341 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 624.1: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-636341 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

#### GC/MS Semi VOA

Method 625.1: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (LCSD 400-636821/3-A). These results have been reported and qualified.

Method 625.1: The continuing calibration verification (CCV) associated with batch 400-636936 recovered above the upper control limit for 2,4,6-Trichlorophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 625.1: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-636821 and analytical batch 400-636936 recovered outside control limits for the following analyte(s): Benzidine and Hexachlorocyclopentadiene. Benzidine and Hexachlorocyclopentadiene has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 625.1: The method blank for preparation batch 400-636821 and analytical batch 400-636936 contained Anthracene, Indeno[1,2,3-cd]pyrene, Diethyl phthalate, Butyl benzyl phthalate, Pyrene, Benzo[b]fluoranthene, Fluoranthene, Benzo[g,h,i]perylene, Benzo[k]fluoranthene, Chrysene, Benzo[a]anthracene, Pentachlorophenol, Benzo[a]pyrene, Di-n-octyl phthalate and Dibenz(a,h)anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 625.1: The following sample was diluted due to the nature of the sample matrix: DSN002-003 FINAL EFF GRAB (400-241663-1). Elevated reporting limits (RLs) are provided.

#### Metals

Method 200.8: The following sample was diluted due to the abundance of non-target analytes: DSN002-003 FINAL EFF COMPOSITE (400-241663-2). Elevated reporting limits (RLs) are provided.

#### **General Chemistry**

Method 420.4: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-637634 and analytical batch 400-638036 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Revision

The report being provided is a revision of the original report sent on 8/22/2023. The report (revision 1) is being revised due to: 4-bromophenyl phenyl ether was added to the 624.1 list.

Eurofins Pensacola 9/14/2023 (Rev. 1)

# **Case Narrative**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241663-1 SDG: Form 2C Table B Sections 1-5

2

Job ID: 400-241663-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

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# **Detection Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241663-1 SDG: Form 2C Table B Sections 1-5

SDG: Form 2C Table B Sections 1-5 **Lab Sample ID: 400-241663-1** 

### lient Sample ID: DSN002-003 FINAL EFF GRAB

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	3.2	JB	48	0.87	ug/L	5	_	625.1	Total/NA
Benzo[a]pyrene	1.0	JB	48	0.58	ug/L	5		625.1	Total/NA
3,4-Benzofluoranthene	1.0	JB	48	0.72	ug/L	5		625.1	Total/NA
Benzo[k]fluoranthene	1.5	JB	48	0.77	ug/L	5		625.1	Total/NA
Butyl benzyl phthalate	1.2	JB	48	0.92	ug/L	5		625.1	Total/NA
Chrysene	2.3	JB	48	0.92	ug/L	5		625.1	Total/NA
Di-n-octyl phthalate	1.0	JB	48	0.82	ug/L	5		625.1	Total/NA

# Client Sample ID: DSN002-003 FINAL EFF COMPOSITE

							-	
Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
0.0027		0.0025	0.0010	mg/L	5	_	200.8	Total/NA
0.0023	J	0.0025	0.0010	mg/L	5		200.8	Total/NA
0.0011	J	0.0013	0.00029	mg/L	5		200.8	Total/NA
0.0045		0.0025	0.0015	mg/L	5		200.8	Total/NA
0.046		0.020	0.0088	mg/L	5		200.8	Total/NA
	0.0027 0.0023 0.0011 0.0045	0.0023 J 0.0011 J 0.0045	0.0027     0.0025       0.0023 J     0.0025       0.0011 J     0.0013       0.0045     0.0025	0.0027         0.0025         0.0010           0.0023         J         0.0025         0.0010           0.0011         J         0.0013         0.00029           0.0045         0.0025         0.0015	0.0027         0.0025         0.0010 mg/L           0.0023 J         0.0025         0.0010 mg/L           0.0011 J         0.0013         0.00029 mg/L           0.0045         0.0025         0.0015 mg/L	0.0027     0.0025     0.0010 mg/L     5       0.0023 J     0.0025     0.0010 mg/L     5       0.0011 J     0.0013     0.00029 mg/L     5       0.0045     0.0025     0.0015 mg/L     5	0.0027     0.0025     0.0010 mg/L     5       0.0023 J     0.0025     0.0010 mg/L     5       0.0011 J     0.0013     0.00029 mg/L     5       0.0045     0.0025     0.0015 mg/L     5	0.0027     0.0025     0.0010 mg/L     5     200.8       0.0023 J     0.0025     0.0010 mg/L     5     200.8       0.0011 J     0.0013     0.00029 mg/L     5     200.8       0.0045     0.0025     0.0015 mg/L     5     200.8

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### Client Sample ID: DSN002-003 FINAL EFF GRAB

No Detections.

Client Sample ID: DSN002-003 FINAL EFF GRAB

No Detections.

Client Sample ID: DSN002-003 FINAL EFF GRAB

No Detections.

Lab Sample ID: 400-241663-2

Lab Sample ID: 400-241663-3

Lab Sample ID: 400-241663-4

Lab Sample ID: 400-241663-6

This Detection Summary does not include radiochemical test results.















# **Method Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241663-1 SDG: Form 2C Table B Sections 1-5

Method	Method Description	Protocol	Laboratory
324.1	Volatile Organic Compounds (GC/MS)	EPA	EET PEN
325.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET PEN
608.3	Organochlorine Pesticides/PCBs in Water	EPA	EET PEN
8.00.8	Metals (ICP/MS)	EPA	EET PEN
35.2	Cyanide, Total	EPA	EET PEN
20.4	Phenolics, Total Recoverable	EPA	EET PEN
8.00.8	Preparation, Total Metals	EPA	EET PEN
511	Microextraction of Organic Compounds	SW846	EET PEN
325	Liquid-Liquid Extraction	EPA	EET PEN
Distill/CN	Distillation, Cyanide	None	EET PEN
Distill/Phenol	Distillation, Phenolics	None	EET PEN

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#### **Protocol References:**

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

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

# **Sample Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-241663-1	DSN002-003 FINAL EFF GRAB	Water	08/08/23 08:41	08/08/23 15:10
400-241663-2	DSN002-003 FINAL EFF COMPOSITE	Water	08/08/23 08:45	08/08/23 15:10
400-241663-3	DSN002-003 FINAL EFF GRAB	Water	08/08/23 08:44	08/08/23 15:10
400-241663-4	DSN002-003 FINAL EFF GRAB	Water	08/08/23 08:39	08/08/23 15:10
400-241663-6	DSN002-003 FINAL EFF GRAB	Water	08/08/23 08:38	08/08/23 15:10

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241663-1 SDG: Form 2C Table B Sections 1-5

Lab Sample ID: 400-241663-1

**Matrix: Water** 

# lient Sample ID: DSN002-003 FINAL EFF GRAB

Date Collected: 08/08/23 08:41 Date Received: 08/08/23 15:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	<0.77		48	0.77	ug/L			08/14/23 18:57	-
Acenaphthylene	<0.82		48		ug/L		08/12/23 13:50	08/14/23 18:57	
Anthracene	<0.87		48		ug/L		08/12/23 13:50	08/14/23 18:57	
1,2-Diphenylhydrazine (as Azobenzene)	<4.8		48		ug/L		08/12/23 13:50	08/14/23 18:57	
Benzidine	<96	*_	120	96	ug/L		08/12/23 13:50	08/14/23 18:57	
Benzo[a]anthracene	3.2	JB	48	0.87	ug/L		08/12/23 13:50	08/14/23 18:57	
Benzo[a]pyrene	1.0	JB	48	0.58	ug/L		08/12/23 13:50	08/14/23 18:57	
3,4-Benzofluoranthene	1.0	JB	48	0.72	ug/L		08/12/23 13:50	08/14/23 18:57	
Benzo[g,h,i]perylene	<1.1		48		ug/L		08/12/23 13:50	08/14/23 18:57	
Benzo[k]fluoranthene	1.5	JB	48		ug/L		08/12/23 13:50	08/14/23 18:57	
Bis(2-chloroethoxy)methane	<0.77		48	0.77	_		08/12/23 13:50	08/14/23 18:57	
Bis(2-chloroethyl)ether	<13		48		ug/L			08/14/23 18:57	
Bis(2-ethylhexyl) phthalate	<24		48		ug/L			08/14/23 18:57	
4-Bromophenyl phenyl ether	<0.96		48		ug/L			08/14/23 18:57	
Butyl benzyl phthalate		JB	48		ug/L			08/14/23 18:57	
p-Chloro-m-cresol	<18	O D	48		ug/L			08/14/23 18:57	
2-Chloronaphthalene	<0.67		48		ug/L			08/14/23 18:57	
2-Chlorophenol	<11		48		ug/L			08/14/23 18:57	
4-Chlorophenyl phenyl ether	<9.6		48		ug/L			08/14/23 18:57	
Chrysene		JB	48		ug/L			08/14/23 18:57	
		JB			_				
Dibenz(a,h)anthracene	<1.2		48		ug/L			08/14/23 18:57	
3,3'-Dichlorobenzidine	<13		48		ug/L			08/14/23 18:57	
2,4-Dichlorophenol	<9.6		48		ug/L			08/14/23 18:57	
Diethyl phthalate	<1.2		48		ug/L			08/14/23 18:57	
2,4-Dimethylphenol	<9.6		48		ug/L			08/14/23 18:57	
Dimethyl phthalate	<0.82		48		ug/L			08/14/23 18:57	
Di-n-butyl phthalate	<6.7		48		ug/L			08/14/23 18:57	
4,6-Dinitro-o-cresol	<7.7		48		ug/L			08/14/23 18:57	
2,4-Dinitrophenol	<16		140		ug/L			08/14/23 18:57	
2,4-Dinitrotoluene	<9.2		48		ug/L			08/14/23 18:57	
2,6-Dinitrotoluene	<9.2		48		ug/L			08/14/23 18:57	
Di-n-octyl phthalate		JB	48	0.82				08/14/23 18:57	
Fluoranthene	<0.87		48	0.87	-			08/14/23 18:57	
Fluorene	<0.87		48		ug/L			08/14/23 18:57	
Hexachlorobenzene	<0.82		48	0.82				08/14/23 18:57	
Hexachlorobutadiene	<17		48		ug/L			08/14/23 18:57	
Hexachlorocyclopentadiene	<13	*+	96		ug/L			08/14/23 18:57	
Hexachloroethane	<20		48		ug/L			08/14/23 18:57	
ndeno[1,2,3-cd]pyrene	<1.1		48		ug/L		08/12/23 13:50	08/14/23 18:57	
sophorone	<0.67		48	0.67	ug/L		08/12/23 13:50	08/14/23 18:57	
Naphthalene	<0.82		48		ug/L			08/14/23 18:57	
Nitrobenzene	< 0.63		48	0.63	ug/L			08/14/23 18:57	
2-Nitrophenol	<12		48	12	ug/L			08/14/23 18:57	
4-Nitrophenol	<10		48	10	ug/L		08/12/23 13:50	08/14/23 18:57	
N-Nitrosodimethylamine	<17		48	17	ug/L		08/12/23 1 <b>3</b> :50	08/14/23 18:57	
N-Nitrosodi-n-propylamine	<16		48	16	ug/L		08/12/23 13:50	08/14/23 18:57	
N-Nitrosodiphenylamine	< 0.87		48	0.87	ug/L		08/12/23 13:50	08/14/23 18:57	
bis(chloroisopropyl) ether	<0.77		48	0.77	ug/L		08/12/23 13:50	08/14/23 18:57	!
Pentachlorophenol	<6.7		96		ug/L			08/14/23 18:57	

Eurofins Pensacola

9/14/2023 (Rev. 1)

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

Lab Sample ID: 400-241663-1

Matrix: Water

lient Sample ID: DSN002-003 FINAL EFF GRAB

Date Collected: 08/08/23 08:41 Date Received: 08/08/23 15:10

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	<0.87	48	0.87	ug/L		08/12/23 13:50	08/14/23 18:57	5
Phenol	<5.3	48	5.3	ug/L		08/12/23 13:50	08/14/23 18:57	5
Pyrene	<1.0	48	1.0	ug/L		08/12/23 13:50	08/14/23 18:57	5
1,2,4-Trichlorobenzene	<0.87	48	0.87	ug/L		08/12/23 13:50	08/14/23 18:57	5
2,4,6-Trichlorophenol	<13	48	13	ug/L		08/12/23 13:50	08/14/23 18:57	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		32 - 109	08/12/23 13:50	08/14/23 18:57	5
2-Fluorophenol	63		10 - 104	08/12/23 13:50	08/14/23 18:57	5
Nitrobenzene-d5	60		31 - 111	08/12/23 13:50	08/14/23 18:57	5
Phenol-d5	46		10 - 110	08/12/23 13:50	08/14/23 18:57	5
Terphenyl-d14	113		30 - 129	08/12/23 13:50	08/14/23 18:57	5
2,4,6-Tribromophenol	89		15 - 135	08/12/23 13:50	08/14/23 18:57	5

Client: International Paper Company

Job ID: 400-241663-1 Project/Site: Riverdale Mill SDG: Form 2C Table B Sections 1-5

Lab Sample ID: 400-241663-2

lient Sample ID: DSN002-003 FINAL EFF COMPOSITE Date Collected: 08/08/23 08:45

Matrix: Water

<b>Date Received:</b>	08/08/23 15:10	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.0000015		0.000018	0.0000015	mg/L		08/09/23 22:29	08/10/23 18:08	1
alpha-BHC	< 0.0000023		0.000018	0.0000023	mg/L		08/09/23 22:29	08/10/23 18:08	1
beta-BHC	< 0.0000066		0.000018	0.0000066	mg/L		08/09/23 22:29	08/10/23 18:08	1
Chlordane (technical)	< 0.000021		0.00018	0.000021	mg/L		08/09/23 22:29	08/10/23 18:08	1
4,4'-DDD	< 0.0000032		0.000018	0.0000032	mg/L		08/09/23 22:29	08/10/23 18:08	1
4,4'-DDE	< 0.0000044		0.000018	0.0000044	mg/L		08/09/23 22:29	08/10/23 18:08	1
4,4'-DDT	< 0.0000069		0.000018	0.0000069	mg/L		08/09/23 22:29	08/10/23 18:08	1
delta-BHC	< 0.0000033		0.000018	0.0000033	mg/L		08/09/23 22:29	08/10/23 18:08	1
Dieldrin	< 0.0000018		0.000018	0.000018	mg/L		08/09/23 22:29	08/10/23 18:08	1
alpha-Endosulfan	< 0.0000038		0.000018	0.0000038	mg/L		08/09/23 22:29	08/10/23 18:08	1
beta-Endosulfan	< 0.0000083		0.000018	0.0000083	mg/L		08/09/23 22:29	08/10/23 18:08	1
Endosulfan sulfate	< 0.000017		0.000018	0.000017	mg/L		08/09/23 22:29	08/10/23 18:08	1
Endrin	< 0.0000041		0.000018	0.0000041	mg/L		08/09/23 22:29	08/10/23 18:08	1
Endrin aldehyde	< 0.0000059		0.000018	0.0000059	mg/L		08/09/23 22:29	08/10/23 18:08	1
gamma-BHC (Lindane)	< 0.0000016		0.000018	0.0000016	mg/L		08/09/23 22:29	08/10/23 18:08	1
Heptachlor	< 0.0000059		0.000018	0.0000059	mg/L		08/09/23 22:29	08/10/23 18:08	1
Heptachlor epoxide	< 0.0000023		0.000018	0.0000023	mg/L		08/09/23 22:29	08/10/23 18:08	1
Methoxychlor	< 0.0000036		0.000046	0.0000036	mg/L		08/09/23 22:29	08/10/23 18:08	1
PCB-1016	< 0.000059		0.00046	0.000059	mg/L		08/09/23 22:29	08/10/23 18:08	1
PCB-1221	< 0.00014		0.00046	0.00014	mg/L		08/09/23 22:29	08/10/23 18:08	1
PCB-1232	< 0.00012		0.00046	0.00012	mg/L		08/09/23 22:29	08/10/23 18:08	1
PCB-1242	< 0.00013		0.00046	0.00013	mg/L		08/09/23 22:29	08/10/23 18:08	1
PCB-1248	< 0.000090		0.00046	0.000090	mg/L		08/09/23 22:29	08/10/23 18:08	1
PCB-1254	< 0.00011		0.00046	0.00011	mg/L		08/09/23 22:29	08/10/23 18:08	1
PCB-1260	< 0.000043		0.00046	0.000043	mg/L		08/09/23 22:29	08/10/23 18:08	1
Toxaphene	<0.00014		0.0011	0.00014	mg/L		08/09/23 22:29	08/10/23 18:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	20		10 - 130	08/09/23 22:29	08/10/23 18:08	1
Tetrachioro-m-xylene	49		43 - 130	08/09/23 22:29	08/10/23 18:08	1
T						

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0015		0.0025	0.0015	mg/L		08/17/23 06:00	08/18/23 04:36	5
Arsenic	< 0.0039		0.013	0.0039	mg/L		08/17/23 06:00	08/20/23 15:42	50
Beryllium	< 0.00017		0.0025	0.00017	mg/L		08/17/23 06:00	08/18/23 04:36	5
Cadmium	<0.00028		0.0025	0.00028	mg/L		08/17/23 06:00	08/18/23 04:36	5
Chromium	0.0027		0.0025	0.0010	mg/L		08/17/23 06:00	08/18/23 04:36	5
Copper	0.0023	J	0.0025	0.0010	mg/L		08/17/23 06:00	08/18/23 04:36	5
Lead	0.0011	J	0.0013	0.00029	mg/L		08/17/23 06:00	08/18/23 04:36	5
Nickel	0.0045		0.0025	0.0015	mg/L		08/17/23 06:00	08/18/23 04:36	5
Selenium	<0.00082		0.0013	0.00082	mg/L		08/17/23 06:00	08/18/23 04:36	5
Silver	< 0.00012		0.0013	0.00012	mg/L		08/17/23 06:00	08/18/23 04:36	5
Thallium	< 0.00012		0.00050	0.00012	mg/L		08/17/23 06:00	08/18/23 04:36	5
Zinc	0.046		0.020	0.0088	mg/L		08/17/23 06:00	08/18/23 04:36	5

Eurofins Pensacola

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

lient Sample ID: DSN002-003 FINAL EFF GRAB

Date Collected: 08/08/23 08:44 Date Received: 08/08/23 15:10

Lab Sample ID: 400-241663-3

Matrix: Water

**General Chemistry** 

Analyte Phenols, Total (EPA 420.4)

Result Qualifier <0.0020

RL 0.0050

MDL Unit 0.0020 mg/L Prepared

Analyzed 08/18/23 14:49 08/22/23 14:51

Dil Fac

Client: International Paper Company Poject/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

lient Sample ID: DSN002-003 FINAL EFF GRAB

Lab Sample ID: 400-241663-4

Date Collected: 08/08/23 08:39 Date Received: 08/08/23 15:10

Matrix: Water

Canaval Chamiata

General Chemistry	D	0 115	DI.		11-24	_			DU F
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (EPA 335.2)	< 0.0035		0.0050	0.0035	mg/L		08/09/23 15:41	08/11/23 15:12	1

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241663-1 SDG: Form 2C Table B Sections 1-5

Lab Sample ID: 400-241663-6

Matrix: Water

lient Sample ID: DSN002-003 FINAL EFF GRAB

Date Collected: 08/08/23 08:38 Date Received: 08/08/23 15:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	<0.0033		0.020	0.0033	mg/L		_	08/09/23 17:50	1
Acrylonitrile	<0.0028		0.010	0.0028	mg/L			08/09/23 17:50	1
Benzene	< 0.00050		0.0010	0.00050	mg/L			08/09/23 17:50	1
Bromoform	< 0.00025		0.0050	0.00025	mg/L			08/09/23 17:50	1
Carbon tetrachloride	< 0.00019		0.0010	0.00019	mg/L			08/09/23 17:50	1
Chlorobenzene	< 0.00015		0.0010	0.00015	mg/L			08/09/23 17:50	1
Chlorodibromomethane	< 0.00024		0.0010	0.00024	mg/L			08/09/23 17:50	1
Chloroethane	< 0.00076		0.0010	0.00076	mg/L			08/09/23 17:50	1
2-Chloroethyl vinyl ether	<0.0020		0.0050	0.0020	mg/L			08/09/23 17:50	1
Chloroform	< 0.00090		0.0010	0.00090	mg/L			08/09/23 17:50	1
Methyl chloride	<0.00090		0.0010	0.00090	mg/L			08/09/23 17:50	1
1,2-Dichlorobenzene	< 0.00050		0.0010	0.00050	mg/L			08/09/23 17:50	1
1,3-Dichlorobenzene	< 0.00054		0.0010	0.00054	mg/L			08/09/23 17:50	1
1,4-Dichlorobenzene	< 0.00064		0.0010	0.00064	mg/L			08/09/23 17:50	1
Dichlorobromomethane	< 0.00050		0.0010	0.00050	mg/L			08/09/23 17:50	1
1,1-Dichloroethane	< 0.00050		0.0010	0.00050	mg/L			08/09/23 17:50	1
1,2-Dichloroethane	< 0.00019		0.0010	0.00019	mg/L			08/09/23 17:50	1
1,1-Dichloroethylene	< 0.00050		0.0010	0.00050	mg/L			08/09/23 17:50	1
1,2-Dichloropropane	< 0.00050		0.0010	0.00050	mg/L			08/09/23 17:50	1
Ethylbenzene	< 0.00050		0.0010	0.00050	mg/L			08/09/23 17:50	1
Methylene Chloride	< 0.0030		0.0050	0.0030	mg/L			08/09/23 17:50	1
1,1,2,2-Tetrachloroethane	< 0.00050		0.0010	0.00050	mg/L			08/09/23 17:50	1
Tetrachloroethylene	< 0.00090		0.0010	0.00090	mg/L			08/09/23 17:50	1
Toluene	< 0.00090		0.0010	0.00090	mg/L			08/09/23 17:50	1
1,2-trans-Dichloroethylene	< 0.00050		0.0010	0.00050	mg/L			08/09/23 17:50	1
1,1,1-Trichloroethane	<0.00018		0.0010	0.00018	mg/L			08/09/23 17:50	1
1,1,2-Trichloroethane	< 0.00021		0.0050	0.00021	mg/L			08/09/23 17:50	1
Trichloroethylene	< 0.00015		0.0010	0.00015	mg/L			08/09/23 17:50	1
Vinyl chloride	< 0.00050		0.0010	0.00050	mg/L			08/09/23 17:50	1
Methyl bromide	<0.00098		0.0010	0.00098	mg/L			08/09/23 17:50	1
1,3-Dichloropropylene	<0.0010		0.0050	0.0010	mg/L			08/09/23 17:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		78 - 118					08/09/23 17:50	1
Dibromofluoromethane	102		81 - 121					08/09/23 17:50	1
Toluene-d8 (Surr)	93		80 - 120					08/09/23 17:50	1

### **Definitions/Glossary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

### lualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
+_	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
-	

В Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Surrogate recovery exceeds control limits, high biased.

Metals

S1+

Qualifier **Qualifier Description** 

.1 Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

**General Chemistry** 

Qualifier **Qualifier Description** 

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report

n Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

**Dilution Factor** Dil Fac

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry) DLC

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE) LOQ

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA Minimum Detectable Concentration (Radiochemistry) MDC

MDL **Method Detection Limit** ML Minimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL **Practical Quantitation Limit** 

**PRES** Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) RER

Reporting Limit or Requested Limit (Radiochemistry) RL

Relative Percent Difference, a measure of the relative difference between two points **RPD** 

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

### Lab Chronicle

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

lient Sample ID: DSN002-003 FINAL EFF GRAB

Date Collected: 08/08/23 08:41 Date Received: 08/08/23 15:10

Lab Sample ID: 400-241663-1

**Matrix: Water** 

Batch Batch Dil Initial Final Batch Prepared **Prep Type** Method Type Run **Factor Amount Amount** Number or Analyzed Analyst Lab Total/NA Prep 625 259.4 mL 1 mL 636821 08/12/23 13:50 STC **EET PEN** Total/NA 625.1 **Analysis** 636936 08/14/23 18:57 S1B 5 0.4 mL 0.4 mL **EET PEN** 

Client Sample ID: DSN002-003 FINAL EFF COMPOSITE

Date Collected: 08/08/23 08:45 Date Received: 08/08/23 15:10

Lab Sample ID: 400-241663-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3511			54.7 mL	2 mL	636477	08/09/23 22:29	BKL	EET PEN
Total/NA	Analysis	608.3		1			636542	08/10/23 18:08	JAW	EET PEN
Total/NA	Prep	200.8			50 mL	50 mL	637299	08/17/23 06:00	KWN	EET PEN
Total/NA	Analysis	200.8		5			637518	08/18/23 04:36	NTH	EET PEN
Total/NA	Prep	200.8			50 mL	50 mL	637299	08/17/23 06:00	KWN	EET PEN
Total/NA	Analysis	200.8		50			637735	08/20/23 15:42	NTH	EET PEN

Client Sample ID: DSN002-003 FINAL EFF GRAB

Date Collected: 08/08/23 08:44 Date Received: 08/08/23 15:10

Lab Sample ID: 400-241663-3

**Matrix: Water** 

Batch Batch Dil Initial Final Batch **Prepared** Method **Prep Type** Type Amount Amount Number or Analyzed Analyst Run Factor Lab Total/NA Prep Distill/Phenol 10 mL 10 mL 637634 08/18/23 14:49 CAC EET PEN Total/NA Analysis 10 mL 10 mL 638036 08/22/23 14:51 CAC **EET PEN** 

Client Sample ID: DSN002-003 FINAL EFF GRAB

Date Collected: 08/08/23 08:39

Date Received: 08/08/23 15:10

Lab Sample ID: 400-241663-4

Matrix: Water

-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	<b>Amount</b>	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	Distill/CN			6 mL	6 mL	636473	08/09/23 15:41	VB	EET PEN
Total/NA	Analysis	335.2		1	100 mL	100 mL	636790	08/11/23 15:12	DEK	<b>EET PEN</b>

Client Sample ID: DSN002-003 FINAL EFF GRAB

Date Collected: 08/08/23 08:38

Date Received: 08/08/23 15:10

Lab	Sam	ple ID:	400-2	410	663-6
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Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	636341	08/09/23 17:50	WPD	EET PEN

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**Laboratory References:** 

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

# **QC Association Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241663-1 SDG: Form 2C Table B Sections 1-5

### IC/MS VOA

### Analysis Batch: 636341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241663-6	DSN002-003 FINAL EFF GRAB	Total/NA	Water	624.1	
MB 400-636341/5	Method Blank	Total/NA	Water	624.1	
LCS 400-636341/3	Lab Control Sample	Total/NA	Water	624.1	

### GC/MS Semi VOA

### Prep Batch: 636821

Lab Sample ID 400-241663-1	Client Sample ID DSN002-003 FINAL EFF GRAB	Prep Type Total/NA	Matrix Water	Method 625	Prep Batch
MB 400-636821/1-A	Method Blank	Total/NA	Water	625	
LCS 400-636821/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 400-636821/3-A	Lab Control Sample Dup	Total/NA	Water	625	

### Analysis Batch: 636936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241663-1	DSN002-003 FINAL EFF GRAB	Total/NA	Water	625.1	636821
MB 400-636821/1-A	Method Blank	Total/NA	Water	625.1	636821
LCS 400-636821/2-A	Lab Control Sample	Total/NA	Water	625.1	636821
LCSD 400-636821/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	636821

### **GC Semi VOA**

### **Prep Batch: 636477**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241663-2	DSN002-003 FINAL EFF COMPOSITE	Total/NA	Water	3511	
MB 400-636477/1-A	Method Blank	Total/NA	Water	3511	
LCS 400-636477/2-A	Lab Control Sample	Total/NA	Water	3511	
LCS 400-636477/4-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 400-636477/3-A	Lab Control Sample Dup	Total/NA	Water	3511	
LCSD 400-636477/5-A	Lab Control Sample Dup	Total/NA	Water	3511	

#### Analysis Batch: 636542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241663-2	DSN002-003 FINAL EFF COMPOSITE	Total/NA	Water	608.3	636477
MB 400-636477/1-A	Method Blank	Total/NA	Water	608.3	636477
LCS 400-636477/2-A	Lab Control Sample	Total/NA	Water	608.3	636477
LCS 400-636477/4-A	Lab Control Sample	Total/NA	Water	608.3	636477
LCSD 400-636477/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	636477
LCSD 400-636477/5-A	Lab Control Sample Dup	Total/NA	Water	608.3	636477

### Metals

### **Prep Batch: 637299**

Lab Sample ID 400-241663-2	Client Sample ID DSN002-003 FINAL EFF COMPOSITE	Prep Type Total/NA	Matrix Water	Method 200.8	Prep Batch
MB 400-637299/1-A ^5	Method Blank	Total/NA	Water	200.8	
LCS 400-637299/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	

### Analysis Batch: 637518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241663-2	DSN002-003 FINAL EFF COMPOSITE	Total/NA	Water	200.8	637299
MB 400-637299/1-A ^5	Method Blank	Total/NA	Water	200.8	637299

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# **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241663-1 SDG: Form 2C Table B Sections 1-5

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### etals (Continued)

### Analysis Batch: 637518 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-637299/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	637299

### Analysis Batch: 637735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241663-2	DSN002-003 FINAL EFF COMPOSITE	Total/NA	Water	200.8	637299

### **General Chemistry**

### **Prep Batch: 636473**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241663-4	DSN002-003 FINAL EFF GRAB	Total/NA	Water	Distill/CN	
MB 400-636473/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 400-636473/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
400-241663-4 MS	DSN002-003 FINAL EFF GRAB	Total/NA	Water	Distill/CN	
400-241663-4 MSD	DSN002-003 FINAL EFF GRAB	Total/NA	Water	Distill/CN	

### Analysis Batch: 636790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241663-4	DSN002-003 FINAL EFF GRAB	Total/NA	Water	335.2	636473
MB 400-636473/1-A	Method Blank	Total/NA	Water	335.2	636473
LCS 400-636473/2-A	Lab Control Sample	Total/NA	Water	335.2	636473
MRL 400-636790/13	Lab Control Sample	Total/NA	Water	335.2	
400-241663-4 MS	DSN002-003 FINAL EFF GRAB	Total/NA	Water	335.2	636473
400-241663-4 MSD	DSN002-003 FINAL EFF GRAB	Total/NA	Water	335.2	636473

### **Prep Batch: 637634**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241663-3	DSN002-003 FINAL EFF GRAB	Total/NA	Water	Distill/Phenol	
MB 400-637634/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 400-637634/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

#### Analysis Batch: 638036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241663-3	DSN002-003 FINAL EFF GRAB	Total/NA	Water	420.4	637634
MB 400-637634/1-A	Method Blank	Total/NA	Water	420.4	637634
LCS 400-637634/2-A	Lab Control Sample	Total/NA	Water	420.4	637634
MRL 400-638036/15	Lab Control Sample	Total/NA	Water	420.4	

Eurofins Pensacola

Client: International Paper Company Project/Site: Riverdale Mill

SDG: Form 2C Table B Sections 1-5

Job ID: 400-241663-1

ethod: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-636341/5

**Matrix: Water** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 636341		1							
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	<0.0033		0.020	0.0033	mg/L			08/09/23 08:59	1
Acrylonitrile	<0.0028		0.010	0.0028	mg/L			08/09/23 08:59	1
Benzene	< 0.00050		0.0010	0.00050	mg/L			08/09/23 08:59	1
Bromoform	< 0.00025		0.0050	0.00025	mg/L			08/09/23 08:59	1
Carbon tetrachloride	< 0.00019		0.0010	0.00019	mg/L			08/09/23 08:59	. 1
Chlorobenzene	< 0.00015		0.0010	0.00015	mg/L			08/09/23 08:59	1
Chlorodibromomethane	< 0.00024		0.0010	0.00024	mg/L			08/09/23 08:59	1
Chloroethane	< 0.00076		0.0010	0.00076	mg/L			08/09/23 08:59	1
2-Chloroethyl vinyl ether	< 0.0020		0.0050	0.0020	mg/L			08/09/23 08:59	1
Chloroform	< 0.00090		0.0010	0.00090	mg/L			08/09/23 08:59	1
Methyl chloride	< 0.00090		0.0010	0.00090	mg/L			08/09/23 08:59	1
1,2-Dichlorobenzene	< 0.00050		0.0010	0.00050	mg/L			08/09/23 08:59	1
1,3-Dichlorobenzene	< 0.00054		0.0010	0.00054	mg/L			08/09/23 08:59	1
1,4-Dichlorobenzene	< 0.00064		0.0010	0.00064	mg/L			08/09/23 08:59	1
Dichlorobromomethane	< 0.00050		0.0010	0.00050	mg/L			08/09/23 08:59	1
1,1-Dichloroethane	< 0.00050		0.0010	0.00050	mg/L			08/09/23 08:59	1
1,2-Dichloroethane	< 0.00019		0.0010	0.00019	mg/L			08/09/23 08:59	1
1,1-Dichloroethylene	< 0.00050		0.0010	0.00050	mg/L			08/09/23 08:59	1
1,2-Dichloropropane	< 0.00050		0.0010	0.00050	mg/L			08/09/23 08:59	1
Ethylbenzene	< 0.00050		0.0010	0.00050	mg/L			08/09/23 08:59	1
Methylene Chloride	< 0.0030		0.0050	0.0030	mg/L			08/09/23 08:59	1
1,1,2,2-Tetrachloroethane	< 0.00050		0.0010	0.00050	mg/L			08/09/23 08:59	1
Tetrachloroethylene	< 0.00090		0.0010	0.00090	mg/L			08/09/23 08:59	1
Toluene	< 0.00090		0.0010	0.00090	mg/L			08/09/23 08:59	1
1,2-trans-Dichloroethylene	< 0.00050		0.0010	0.00050	mg/L			08/09/23 08:59	1
1,1,1-Trichloroethane	< 0.00018		0.0010	0.00018	mg/L			08/09/23 08:59	1
1,1,2-Trichloroethane	< 0.00021		0.0050	0.00021	mg/L			08/09/23 08:59	1

MB	MB

< 0.00015

< 0.00050

< 0.00098

<0.0010

1								
-	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
į	4-Bromofluorobenzene	98		78 - 118		08/09/23 08:59	1	
	Dibromofluoromethane	101		81 - 121		08/09/23 08:59	1	
- 0.0-00	Toluene-d8 (Surr)	92		80 - 120		08/09/23 08:59	1	

0.0010

0.0050

0.0010 0.00015 mg/L

0.0010 0.00098 mg/L

0.00050 mg/L

0.0010 mg/L

Lab Sample ID: LCS 400-636341/3

Matrix: Water

1,3-Dichloropropylene

Trichloroethylene

Vinyl chloride

Methyl bromide

Analysis Batch: 636341

<b>Client Sample</b>	ID:	Lab	<b>Control Sample</b>
		Pre	p Type: Total/NA

08/09/23 08:59

08/09/23 08:59

08/09/23 08:59

08/09/23 08:59

1

1

		Spike	LCS	LCS				%Rec	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Acrolein	0.250	0.326		mg/L		131	60 - 140	
	Acrylonitrile	0.500	0.621		mg/L		124	60 - 140	
	Benzene	0.0500	0.0478		mg/L		96	65 - 135	
	Bromoform	0.0500	0.0447		mg/L		89	70 - 130	
1	Carbon tetrachloride	0.0500	0.0478		mg/L		96	70 - 130	
- T	Chlorobenzene	0.0500	0.0431		mg/L		86	65 - 135	

Eurofins Pensacola

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

### lethod: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-636341/3

**Matrix: Water** 

Analysis Batch: 636341

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chlorodibromomethane	0.0500	0.0464		mg/L		93	69 - 133	
Chloroethane	0.0250	0.0237		mg/L		95	40 - 160	
2-Chloroethyl vinyl ether	0.0250	0.0252		mg/L		101	1-225	
Chloroform	0.0500	0.0468		mg/L		94	70 - 135	
Methyl chloride	0.0250	0.0215		mg/L		86	1-205	
1,2-Dichlorobenzene	0.0500	0.0411		mg/L		82	65 - 135	
1,3-Dichlorobenzene	0.0500	0.0389		mg/L		78	70 - 130	
1,4-Dichlorobenzene	0.0500	0.0399		mg/L		80	65 - 135	
Dichlorobromomethane	0.0500	0.0481		mg/L		96	65 - 135	
1,1-Dichloroethane	0.0500	0.0482		mg/L		96	70 - 130	
1,2-Dichloroethane	0.0500	0.0475		mg/L		95	70 - 130	
1,1-Dichloroethylene	0.0500	0.0619		mg/L		124	50 - 150	
1,2-Dichloropropane	0.0500	0.0491		mg/L		98	35 - 165	
Ethylbenzene	0.0500	0.0425		mg/L		85	60 - 140	
Methylene Chloride	0.0500	0.0629		mg/L		126	60 - 140	
1,1,2,2-Tetrachloroethane	0.0500	0.0414		mg/L		83	60 - 140	
Tetrachloroethylene	0.0500	0.0420		mg/L		84	70 - 130	
Toluene	0.0500	0.0426		mg/L		85	70 - 130	
1,2-trans-Dichloroethylene	0.0500	0.0578		mg/L		116	70 - 130	
1,1,1-Trichloroethane	0.0500	0.0477		mg/L		95	70 - 130	
1,1,2-Trichloroethane	0.0500	0.0455		mg/L		91	70 - 130	
Trichloroethylene	0.0500	0.0485		mg/L		97	65 - 135	
Vinyl chloride	0.0250	0.0221		mg/L		88	5 - 195	
Methyl bromide	0.0250	0.0293		mg/L		117	15 - 185	
1,3-Dichloropropylene	0.100	0.0898		mg/L		90	25 - 175	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	95		78 - 118
Dibromofluoromethane	100		81 - 121
Toluene-d8 (Surr)	95		80 - 120

### Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-636821/1-A

**Matrix: Water** 

Analysis Batch: 636936

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 636821** 

Analysis Batch. 030330	MD	мв							0
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.16		10	0.16	ug/L		08/12/23 13:50	08/14/23 15:21	1
Acenaphthylene	< 0.17		10	0.17	ug/L		08/12/23 13:50	08/14/23 15:21	1
Anthracene	0.691	J	10	0.18	ug/L		08/12/23 13:50	08/14/23 15:21	1
1,2-Diphenylhydrazine (as Azobenzene)	<1.0		10	1.0	ug/L		08/12/23 13:50	08/14/23 15:21	1
Benzidine	<20		25	20	ug/L		08/12/23 13:50	08/14/23 15:21	1
Benzo[a]anthracene	1.14	J	10	0.18	ug/L		08/12/23 13:50	08/14/23 15:21	1
Benzo[a]pyrene	0.282	J	10	0.12	ug/L		08/12/23 13:50	08/14/23 15:21	1
3.4-Benzofluoranthene	0.301	J	10	0.15	ug/L		08/12/23 13:50	08/14/23 15:21	1
Benzo[g,h,i]perylene	0.699	J	10	0.23	ug/L		08/12/23 13:50	08/14/23 15:21	1
Benzo[k]fluoranthene	0.437	J	10	0.16	ug/L		08/12/23 13:50	08/14/23 15:21	1

Eurofins Pensacola

Client: International Paper Company

Job ID: 400-241663-1 Project/Site: Riverdale Mill SDG: Form 2C Table B Sections 1-5

## Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-636821/1-A

**Matrix: Water** 

Analysis Batch: 636936

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 636821** 

Analysis Batch: 636936	МВ	МВ						Prep Batch:	030021
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	<0.16		10	0.16	ug/L		08/12/23 13:50	08/14/23 15:21	1
Bis(2-chloroethyl)ether	<2.7		10	2.7	ug/L		08/12/23 13:50	08/14/23 15:21	1
Bis(2-ethylhexyl) phthalate	<5.0		10	5.0	ug/L		08/12/23 13:50	08/14/23 15:21	1
4-Bromophenyl phenyl ether	<0.20		10	0.20	ug/L		08/12/23 13:50	08/14/23 15:21	1
Butyl benzyl phthalate	0.834	J	10	0.19	ug/L		08/12/23 13:50	08/14/23 15:21	1
p-Chloro-m-cresol	<3.8		10	3.8	ug/L		08/12/23 13:50	08/14/23 15:21	1
2-Chloronaphthalene	< 0.14		10	0.14	ug/L		08/12/23 13:50	08/14/23 15:21	1
2-Chlorophenol	<2.2		10	2.2	ug/L		08/12/23 13:50	08/14/23 15:21	1
4-Chlorophenyl phenyl ether	<2.0		10	2.0	ug/L		08/12/23 13:50	08/14/23 15:21	1
Chrysene	0.943	J	10	0.19	ug/L		08/12/23 13:50	08/14/23 15:21	1
Dibenz(a,h)anthracene	0.469	J	10	0.24	ug/L		08/12/23 13:50	08/14/23 15:21	1
3,3'-Dichlorobenzidine	<2.6		10	2.6	ug/L		08/12/23 13:50	08/14/23 15:21	1
2,4-Dichlorophenol	<2.0		10	2.0	ug/L		08/12/23 13:50	08/14/23 15:21	1
Diethyl phthalate	0.946	J	10	0.24	ug/L		08/12/23 13:50	08/14/23 15:21	1
2,4-Dimethylphenol	<2.0		10	2.0	ug/L		08/12/23 13:50	08/14/23 15:21	1
Dimethyl phthalate	< 0.17		10	0.17	ug/L		08/12/23 13:50	08/14/23 15:21	1
Di-n-butyl phthalate	<1.4		10	1.4	ug/L		08/12/23 13:50	08/14/23 15:21	1
4,6-Dinitro-o-cresol	<1.6		10	1.6	ug/L		08/12/23 13:50	08/14/23 15:21	1
2,4-Dinitrophenol	<3.4		30	3.4	ug/L		08/12/23 13:50	08/14/23 15:21	1
2,4-Dinitrotoluene	<1.9		10	1.9	ug/L		08/12/23 13:50	08/14/23 15:21	1
2,6-Dinitrotoluene	<1.9		10	1.9	ug/L		08/12/23 13:50	08/14/23 15:21	1
Di-n-octyl phthalate	0.250	J	10	0.17			08/12/23 13:50	08/14/23 15:21	1
Fluoranthene	1.17	J	10	0.18	ug/L		08/12/23 13:50	08/14/23 15:21	1
Fluorene	<0.18		10	0.18	-		08/12/23 13:50	08/14/23 15:21	1
Hexachlorobenzene	< 0.17		10	0.17	ug/L		08/12/23 13:50	08/14/23 15:21	1
Hexachlorobutadiene	<3.6		10	3.6	ug/L		08/12/23 13:50	08/14/23 15:21	1
Hexachlorocyclopentadiene	<2.6		20	2.6	ug/L		08/12/23 13:50	08/14/23 15:21	1
Hexachloroethane	<4.2		10		ug/L		08/12/23 13:50	08/14/23 15:21	1
indeno[1,2,3-cd]pyrene	0.382	J	10	0.22			08/12/23 13:50	08/14/23 15:21	1
Isophorone	< 0.14		10	0.14	ug/L		08/12/23 13:50	08/14/23 15:21	1
Naphthalene	< 0.17		10	0.17	ug/L		08/12/23 13:50	08/14/23 15:21	1
Nitrobenzene	< 0.13		10	0.13	ug/L		08/12/23 13:50	08/14/23 15:21	1
2-Nitrophenol	<2.4		10	2.4	ug/L		08/12/23 13:50	08/14/23 15:21	1
4-Nitrophenol	<2.1	*	10	2.1	ug/L		08/12/23 13:50	08/14/23 15:21	1
N-Nitrosodimethylamine	<3.5		10	3.5	ug/L		08/12/23 13:50	08/14/23 15:21	1
N-Nitrosodi-n-propylamine	<3.3		10	3.3	ug/L		08/12/23 13:50	08/14/23 15:21	1
N-Nitrosodiphenylamine	<0.18		10	0.18	ug/L		08/12/23 13:50	08/14/23 15:21	1
bis(chloroisopropyl) ether	< 0.16		10	0.16	ug/L		08/12/23 13:50	08/14/23 15:21	1
Pentachlorophenol	6.15	J	20	1.4	ug/L		08/12/23 13:50	08/14/23 15:21	1
Phenanthrene	<0.18		10	0.18	ug/L		08/12/23 13:50	08/14/23 15:21	1
Phenol	<1.1		10	1.1	ug/L		08/12/23 13:50	08/14/23 15:21	1
Pyrene	1.19	J	10	0.21	ug/L		08/12/23 13:50	08/14/23 15:21	1
1,2,4-Trichlorobenzene	<0.18		10	0.18	ug/L		08/12/23 13:50	08/14/23 15:21	1
2,4,6-Trichlorophenol	<2.6		10	2.6	ug/L		08/12/23 13:50	08/14/23 15:21	1

ИВ	MB

Surrogate	%Recovery Qualit	fier Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	91	32 - 109	08/12/23 13:50	08/14/23 15:21	1
2-Fluorophenol	72	10 - 104	08/12/23 13:50	08/14/23 15:21	1

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

### lethod: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

MD MD

Lab Sample ID: MB 400-636821/1-A

Lab Sample ID: LCS 400-636821/2-A

**Matrix: Water** 

Analysis Batch: 636936

4-Bromophenyl phenyl ether

4-Chlorophenyl phenyl ether

Butyl benzyl phthalate

2-Chloronaphthalene

Dibenz(a,h)anthracene

3.3'-Dichlorobenzidine

2,4-Dichlorophenol

2,4-Dimethylphenol

Dimethyl phthalate

Di-n-butyl phthalate

4,6-Dinitro-o-cresol

2,4-Dinitrophenol

2.4-Dinitrotoluene

2,6-Dinitrotoluene

Fluoranthene

Fluorene

Di-n-octyl phthalate

Hexachlorobenzene

Hexachlorobutadiene

Hexachloroethane

Hexachlorocyclopentadiene

Diethyl phthalate

p-Chloro-m-cresol

2-Chlorophenol

Chrysene

Client Sample ID: Method Blank

Prep Type: Total/NA

**Prep Batch: 636821** 

	IND INI	D			
Surrogate	%Recovery Q	ualifier Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	81	31 - 111	08/12/23 13:50	08/14/23 15:21	1
Phenol-d5	52	10-110	08/12/23 13:50	08/14/23 15:21	1
Terphenyl-d14	118	30 - 129	08/12/23 13:50	08/14/23 15:21	1
2,4,6-Tribromophenol	103	15 - 135	08/12/23 13:50	08/14/23 15:21	1

Client Sample ID: Lab Control Sample

Matrix: Water Analysis Batch: 636936							Prep Type: Total/NA Prep Batch: 636821
Thialy old Baldin doddoo	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	120	105		ug/L		87	60 - 132
Acenaphthylene	120	111		ug/L		92	54 - 126
Anthracene	120	118		ug/L		98	43 - 120
1,2-Diphenylhydrazine (as	120	89.1		ug/L		74	40 - 130
Azobenzene)							
Benzidine	659	<20	*_	ug/L		2	5 - 130
Benzo[a]anthracene	120	115		ug/L		96	42 - 133
Benzo[a]pyrene	120	126		ug/L		105	32 - 148
3,4-Benzofluoranthene	120	123		ug/L		103	42 - 140
Benzo[g,h,i]perylene	120	117		ug/L		97	10 - 195
Benzo[k]fluoranthene	120	129		ug/L		108	25 - 146
Bis(2-chloroethoxy)methane	120	101		ug/L		84	49 - 165
Bis(2-chloroethyl)ether	120	110		ug/L		92	43 - 126
Bis(2-ethylhexyl) phthalate	120	111		ug/L		92	29 - 137

120

120

120

120

120

120

120

120

240

120

120

120

120

120

240

240

120

120

120

120

120

120

120

120

120

138

117

117

113

108

140

120

118

221

127

107

133

122

107

216

220

135

137

110

134

102

143

128

99.1

179 \*+

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L 90 36 - 120 ug/L 117 38 - 145 100 44 - 140 ug/L 10-200 ug/L 99 ug/L 92 10-213 53 - 122 ug/L 106 10 - 120 ug/L 89 42 - 120 111 ug/L ug/L 102 10-120 89 10-120 ug/L 90 53 - 130 ug/L 92 10-173 ug/L ug/L 112 48 - 127 68 - 137 114 ug/L 19-132 92 ug/L ug/L 112 43 - 121

85

119

107

149

83

115

97

97

94

65 - 120

10-140

41 - 128

65 - 120

70 - 120

10-142

38-120

10-130

55 - 120

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Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241663-1 SDG: Form 2C Table B Sections 1-5

# lethod: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-636821/2-A **Matrix: Water** 

Analysis Batch: 636936

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 636821

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Indeno[1,2,3-cd]pyrene	120	109		ug/L		91	10 - 151	
Isophorone	120	97.5		ug/L		81	47 - 180	
Naphthalene	120	111		ug/L		93	36 - 120	
Nitrobenzene	120	96.8		ug/L		81	54 - 158	
2-Nitrophenol	120	116		ug/L		97	61 - 163	
4-Nitrophenol	240	142		ug/L		59	13 - 129	
N-Nitrosodimethylamine	120	66.4		ug/L		55	31 - 130	
N-Nitrosodi-n-propylamine	120	94.7		ug/L		79	14 - 198	
N-Nitrosodiphenylamine	119	117		ug/L		98	57 - 130	
bis(chloroisopropyl) ether	120	85.8		ug/L		71	63 - 139	
Pentachlorophenol	240	216		ug/L		90	38 - 152	
Phenanthrene	120	115		ug/L		96	65 - 120	
Phenol	120	69.5		ug/L		58	17 - 120	
Pyrene	120	109		ug/L		91	70 - 120	
1,2,4-Trichlorobenzene	120	117		ug/L		97	57 - 130	
2,4,6-Trichlorophenol	120	133		ug/L		111	52 - 129	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	107		32 - 109
2-Fluorophenol	79		10-104
Nitrobenzene-d5	87		31 - 111
Phenol-d5	62		10-110
Terphenyl-d14	118		30 - 129
2,4,6-Tribromophenol	134		15-135
haten			

Lab Sample ID: LCSD 400-636821/3-A

**Matrix: Water** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 636821

Analysis Batch: 636936 %Rec RPD Spike LCSD LCSD D %Rec Limits RPD Limit Result Qualifier Added Unit Analyte 60 - 132 4 40 120 101 ug/L 84 Acenaphthene 40 120 108 ug/L 90 54 - 126 3 Acenaphthylene 94 43 - 120 5 40 120 112 ug/L Anthracene 40 - 130 3 40 86.1 ug/L 72 120 1,2-Diphenylhydrazine (as Azobenzene) 2 5-130 29 40 659 <20 \*ug/L Benzidine 42 - 133 40 120 113 ug/L 94 1 Benzo[a]anthracene 100 32-148 4 40 ug/L 120 120 Benzo[a]pyrene 97 42 - 140 40 ug/L 116 120 3,4-Benzofluoranthene 95 10-195 3 40 120 114 ug/L Benzo[g,h,i]perylene 25-146 4 40 104 120 124 ug/L Benzo[k]fluoranthene 82 49 - 165 2 40 ug/L 98.9 Bis(2-chloroethoxy)methane 120 40 65 43 - 126 34 120 77.8 ug/L Bis(2-chloroethyl)ether 2 40 29 - 137 91 120 109 ug/L Bis(2-ethylhexyl) phthalate 113 65 - 120 2 40 136 ug/L 4-Bromophenyl phenyl ether 120 3 40 95 10-140 120 114 ug/L Butyl benzyl phthalate 2 40 99 41 - 128 120 119 ug/L p-Chloro-m-cresol 24 109 ug/L 91 65 - 120 4 120 2-Chloronaphthalene 40 88 36 - 120 120 106 ug/L 2-Chlorophenol

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

Client: International Paper Company

Project/Site: Riverdale Mill

# lethod: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-636821/3-A

Matrix: Water

Analysis Batch: 636936

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 636821

Amaryoro Batom Goodgo	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4-Chlorophenyl phenyl ether	120	139		ug/L		116	38 - 145	1	40
Chrysene	120	117		ug/L		98	44 - 140	2	40
Dibenz(a,h)anthracene	120	114		ug/L		95	10-200	4	40
3,3'-Dichlorobenzidine	240	234		ug/L		98	10-213	6	40
2,4-Dichlorophenol	120	128		ug/L		107	53 - 122	1	40
Diethyl phthalate	120	106		ug/L		88	10-120	1	40
2,4-Dimethylphenol	120	133		ug/L		111	42 - 120	0	40
Dimethyl phthalate	120	124		ug/L		104	10 - 120	2	40
Di-n-butyl phthalate	120	103		ug/L		86	10 - 120	4	40
4,6-Dinitro-o-cresol	240	224		ug/L		93	53 - 130	4	40
2,4-Dinitrophenol	240	237		ug/L		99	10 - 173	8	40
2,4-Dinitrotoluene	120	138		ug/L		115	48 - 127	2	40
2,6-Dinitrotoluene	120	138		ug/L		115	68 - 137	1	40
Di-n-octyl phthalate	120	111		ug/L		92	19 - 132	0	40
Fluoranthene	120	130		ug/L		108	43 - 121	3	40
Fluorene	120	99.4		ug/L		83	70 - 120	3	38
Hexachlorobenzene	120	141		ug/L		117	10 - 142	1	40
Hexachlorobutadiene	120	122		ug/L		102	38 - 120	4	40
Hexachlorocyclopentadiene	120	192	*+	ug/L		160	10 - 130	7	40
Hexachloroethane	120	94.3		ug/L		79	55 - 120	5	40
Indeno[1,2,3-cd]pyrene	120	106		ug/L		89	10 - 151	3	40
Isophorone	120	97.3		ug/L		81	47 - 180	0	40
Naphthalene	120	104		ug/L		87	36 - 120	6	40
Nitrobenzene	120	94.8		ug/L		79	54 - 158	2	40
2-Nitrophenol	120	122		ug/L		101	61 - 163	5	40
4-Nitrophenol	240	169		ug/L		70	13 - 129	17	40
N-Nitrosodimethylamine	120	68.4		ug/L		57	31 - 130	3	40
N-Nitrosodi-n-propylamine	120	95.9		ug/L		80	14 - 198	1	40
N-Nitrosodiphenylamine	119	115		ug/L		96	57 - 130	1	40
bis(chloroisopropyl) ether	120	82.0		ug/L		68	63 - 139	5	40
Pentachlorophenol	240	235		ug/L		98	38 - 152	9	40
Phenanthrene	120	110		ug/L		91	65 - 120	4	39
Phenol	120	71.0		ug/L		59	17 - 120	2	40
Pyrene	120	106		ug/L		88	70 - 120	3	40
1,2,4-Trichlorobenzene	120	114		ug/L		95	57 - 130	2	40
2,4,6-Trichlorophenol	120	136		ug/L		114	52 - 129	2	40

CSD	LCSD

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	105		32 - 109
2-Fluorophenol	78		10 - 104
Nitrobenzene-d5	85		31 - 111
Phenol-d5	62		10 - 110
Terphenyl-d14	114		30 - 129
2,4,6-Tribromophenol	138	S1+	15 - 135

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

### ethod: 608.3 - Organochlorine Pesticides/PCBs in Water

Lab Sample ID: MB 400-636477/1-A

**Matrix: Water** 

Analysis Batch: 636542

Client Sample ID: Method Blank Prep Type: Total/NA

Analysis Batch: 636542								Prep Batch:	636477
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.0000016		0.000020	0.0000016	mg/L		08/09/23 15:59	08/10/23 15:54	1
alpha-BHC	< 0.0000025		0.000020	0.0000025	-		08/09/23 15:59	08/10/23 15:54	1
beta-BHC	< 0.0000072		0.000020	0.0000072	mg/L		08/09/23 15:59	08/10/23 15:54	1
Chlordane (technical)	< 0.000023		0.00020	0.000023	mg/L		08/09/23 15:59	08/10/23 15:54	1
4,4'-DDD	< 0.0000035		0.000020	0.0000035	mg/L		08/09/23 15:59	08/10/23 15:54	1
4,4'-DDE	< 0.0000048		0.000020	0.0000048	mg/L		08/09/23 15:59	08/10/23 15:54	1
4,4'-DDT	< 0.0000075		0.000020	0.0000075	mg/L		08/09/23 15:59	08/10/23 15:54	1
delta-BHC	< 0.0000036		0.000020	0.0000036	mg/L		08/09/23 15:59	08/10/23 15:54	1
Dieldrin	<0.0000020		0.000020	0.0000020	mg/L		08/09/23 15:59	08/10/23 15:54	1
alpha-Endosulfan	< 0.0000042		0.000020	0.0000042	mg/L		08/09/23 15:59	08/10/23 15:54	1
beta-Endosulfan	< 0.0000091		0.000020	0.0000091	mg/L		08/09/23 15:59	08/10/23 15:54	1
Endosulfan sulfate	< 0.000019		0.000020	0.000019	mg/L		08/09/23 15:59	08/10/23 15:54	1
Endrin	< 0.0000045		0.000020	0.0000045	mg/L		08/09/23 15:59	08/10/23 15:54	1
Endrin aldehyde	< 0.0000064		0.000020	0.0000064	mg/L		08/09/23 15:59	08/10/23 15:54	1
gamma-BHC (Lindane)	< 0.0000017		0.000020	0.0000017	mg/L		08/09/23 15:59	08/10/23 15:54	1
Heptachlor	< 0.0000065		0.000020	0.0000065	mg/L		08/09/23 15:59	08/10/23 15:54	1
Heptachlor epoxide	< 0.0000025		0.000020	0.0000025	mg/L		08/09/23 15:59	08/10/23 15:54	1
Methoxychlor	< 0.0000039		0.000050	0.0000039	mg/L		08/09/23 15:59	08/10/23 15:54	1
PCB-1016	< 0.000065		0.00050	0.000065	mg/L		08/09/23 15:59	08/10/23 15:54	1
PCB-1221	< 0.00016		0.00050	0.00016	mg/L		08/09/23 15:59	08/10/23 15:54	1
PCB-1232	< 0.00013		0.00050	0.00013	mg/L		08/09/23 15:59	08/10/23 15:54	1
PCB-1242	< 0.00014		0.00050	0.00014	mg/L		08/09/23 15:59	08/10/23 15:54	1
PCB-1248	< 0.000098		0.00050	0.000098	mg/L		08/09/23 15:59	08/10/23 15:54	1

MB MB

< 0.00012

< 0.000047

< 0.00016

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	102		10 - 130	08/09/23 15:59	08/10/23 15:54	1
Tetrachloro-m-xylene	71		43 - 130	08/09/23 15:59	08/10/23 15:54	1

0.00050

0.00050

0.0012

0.00012 mg/L

0.000047 mg/L

0.00016 mg/L

Lab Sample ID: LCS 400-636477/2-A

Matrix: Water

PCB-1254

PCB-1260 Toxaphene

Analysis Batch: 636542

Client Sample ID: Lab Control Sample Prep Type: Total/NA

08/09/23 15:59 08/10/23 15:54

08/09/23 15:59 08/10/23 15:54

08/09/23 15:59 08/10/23 15:54

Prep Batch: 636477

1

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aldrin	0.000500	0.000392		mg/L		78	42 - 140	
alpha-BHC	0.000500	0.000424		mg/L		85	37 - 140	
beta-BHC	0.000500	0.000395		mg/L		79	17 - 147	
4,4'-DDD	0.000500	0.000571		mg/L		114	31 - 141	
4,4'-DDE	0.000500	0.000433		mg/L		87	30 - 145	
4,4'-DDT	0.000500	0.000315		mg/L		63	25 - 160	
delta-BHC	0.000500	0.000449		mg/L		90	19 - 140	
Dieldrin	0.000500	0.000446		mg/L		89	36 - 146	
alpha-Endosulfan	0.000500	0.000434		mg/L		87	45 - 153	
beta-Endosulfan	0.000500	0.000459		mg/L		92	1 - 202	
Endosulfan sulfate	0.000500	0.000488		mg/L		98	26 - 144	
Endrin	0.000500	0.000482		mg/L		96	30 - 147	

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Client: International Paper Company

Project/Site: Riverdale Mill SDG: Form 2C Table B Sections 1-5

lethod: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

Lab Sample ID: LCS 400-636477/2-A

Lab Sample ID: LCS 400-636477/4-A

Analysis Batch: 636542

**Matrix: Water** 

Client Sample ID: Lab Control Sample

Prep Type: Total/NA **Prep Batch: 636477** 

Job ID: 400-241663-1

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Endrin aldehyde	0.000500	0.000503		mg/L		101	30 - 130
gamma-BHC (Lindane)	0.000500	0.000413		mg/L		83	32 - 140
Heptachlor	0.000500	0.000431		mg/L		86	34 - 140
Heptachlor epoxide	0.000500	0.000429		mg/L		86	37 - 142
Methoxychlor	0.000500	0.000382		mg/L		76	30 - 130

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	98		10-130
Tetrachloro-m-xylene	78		43 - 130

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 636477

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
PCB-1016	0.00505	0.00535		mg/L		106	50 - 114	
PCB-1260	0.00503	0.00551		mg/L		110	8 - 127	

LCS LCS

	Surrogate	%Recovery	Qualifier	Limits
ŀ	DCB Decachlorobiphenyl	98		10 - 130
I	Tetrachioro-m-xylene	81		43 - 130

**Matrix: Water** 

Lab Sample ID: LCSD 400-636477/3-A

Analysis Batch: 636542

**Matrix: Water** 

Analysis Batch: 636542

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 636477

%Rec Spike LCSD LCSD **RPD** Unit %Rec Limits RPD Limit Analyte Added Result Qualifier 0.000500 0.000440 mg/L 88 42 - 140 12 30 Aldrin 37 - 140 30 0.000465 mg/L 93 alpha-BHC 0.000500 17-147 beta-BHC 0.000500 0.000426 mg/L 85 7 30 121 31 - 141 30 4.4'-DDD 0.000500 0.000606 mg/L 6 4,4'-DDE 0.000500 0.000463 mg/L 93 30 - 145 7 30 25 - 160 30 mg/L 76 19 0.000380 4,4'-DDT 0.000500 19-140 8 30 delta-BHC 0.000500 0.000485 mg/L 97 97 36 - 146 30 Dieldrin 0.000500 0.000483 mg/L 45 - 153 7 28 0.000467 93 0.000500 mg/L alpha-Endosulfan 1-202 30 97 6 0.000487 beta-Endosulfan 0.000500 mg/L 26 - 144 30 Endosulfan sulfate 0.000500 0.000538 mg/L 108 10 Endrin 0.000500 0.000524 mg/L 105 30 - 147 8 30 30 - 130 30 0.000549 mg/L 110 Endrin aldehyde 0.000500 90 32 - 140 8 30 gamma-BHC (Lindane) 0.000500 0.000448 mg/L Q 94 34-140 30 0.000500 0.000471 mg/L Heptachlor 37 - 142 8 26 0.000500 0.000464 mg/L 93 Heptachlor epoxide 30 - 130 30 mg/L 85 11 0.000500 0.000426 Methoxychlor

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	99		10 - 130
Tetrachloro-m-xylene	85		43 - 130

Client: International Paper Company

Project/Site: Riverdale Mill SDG: Form 2C Table B Sections 1-5

### lethod: 608.3 - Organochlorine Pesticides/PCBs in Water

Lab Sample ID: LCSD 400-636477/5-A

**Matrix: Water** 

Analysis Batch: 636542

<b>Client Sample</b>	ID:	Lab	Control	Sample Dup
			Desar To	Tadal/ALA

Prep Type: Total/NA **Prep Batch: 636477** 

Job ID: 400-241663-1

į		Spike	LCSD	LCSD				%Rec		RPD	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
	PCB-1016	0.00505	0.00541		mg/L		107	50 - 114	1	30	
	PCB-1260	0.00503	0.00559		mg/L		111	8 - 127	1	30	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	100		10 - 130
Tetrachloro-m-xylene	84		43 - 130

### Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 400-637299/1-A ^5

**Matrix: Water** 

Analysis Batch: 637518

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 637299

, manyoro Datom coroto	IB MB						. Top Datom	
Analyte Res	ult Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony <0.00	15	0.0025	0.0015	mg/L		08/17/23 06:00	08/18/23 02:09	5
Arsenic <0.000	39	0.0013	0.00039	mg/L		08/17/23 06:00	08/18/23 02:09	5
Beryllium <0.000	17	0.0025	0.00017	mg/L		08/17/23 06:00	08/18/23 02:09	5
Cadmium <0.000	28	0.0025	0.00028	mg/L		08/17/23 06:00	08/18/23 02:09	5
Chromium <0.00	10	0.0025	0.0010	mg/L		08/17/23 06:00	08/18/23 02:09	5
Copper <0.00	10	0.0025	0.0010	mg/L		08/17/23 06:00	08/18/23 02:09	5
Lead <0.000	29	0.0013	0.00029	mg/L		08/17/23 06:00	08/18/23 02:09	5
Nickel <0.00	15	0.0025	0.0015	mg/L		08/17/23 06:00	08/18/23 02:09	5
Selenium <0.000	82	0.0013	0.00082	mg/L		08/17/23 06:00	08/18/23 02:09	5
Silver <0.000	12	0.0013	0.00012	mg/L		08/17/23 06:00	08/18/23 02:09	5
Thallium <0.000	12	0.00050	0.00012	mg/L		08/17/23 06:00	08/18/23 02:09	5
Zinc <0.00	88	0.020	0.0088	mg/L		08/17/23 06:00	08/18/23 02:09	5

Lab Sample ID: LCS 400-637299/2-A ^5

**Matrix: Water** 

Analysis Batch: 637518

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 637299

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Antimony	0.0500	0.0539		mg/L		108	85 - 115	
Arsenic	0.0500	0.0508		mg/L		102	85 - 115	
Beryllium	0.0500	0.0515		mg/L		103	85 - 115	
Cadmium	0.0500	0.0561		mg/L		112	85 - 115	
Chromium	0.0500	0.0530		mg/L		106	85 - 115	
Copper	0.0500	0.0553		mg/L		111	85 - 115	
Lead	0.0500	0.0511		mg/L		102	85 - 115	
Nickel	0.0500	0.0527		mg/L		105	85 - 115	
Selenium	0.0500	0.0507		mg/L		101	85 - 115	
Silver	0.0500	0.0521		mg/L		104	85 - 115	
Thallium	0.0100	0.00997		mg/L		100	85 - 115	
Zinc	0.0500	0.0536		mg/L		107	85 - 115	

Matrix: Water Prep Type: Total/NA Analysis Batch: 638036 Prep Batch: 637634 MR MR **MDL** Unit Prepared Analyzed Dil Fac Analyte Result Qualifier RL 08/18/23 14:49 08/22/23 14:45 Phenois, Total <0.0020 0.0050 0.0020 mg/L

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 400-637634/2-A Prep Type: Total/NA **Matrix: Water** Prep Batch: 637634 Analysis Batch: 638036 %Rec Spike LCS LCS %Rec Limits Result Qualifier Analyte Added Unit D 90 - 110 0.100 0.0978 mg/L 98 Phenols, Total

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

Method: 420.4 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: MRL 400-638036/15 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 638036

Spike MRL MRL %Rec Analyte Added Result Qualifier Unit %Rec Limits Phenois, Total 0.00500 0.00563 mg/L 113 50 - 150

3355 McLemore Drive

# **Chain of Custody Record**



& eurofins

Pensacola, FL 32514 Phone: 850-474-1001 Fax: 850-478-2671	CII	iaiii u	Custot	ly re	ecor	u			20					Environment Testing
Client Information	Sampler CAPUA C	CIPE	460H		nire, Che	yenne	R	40	00-2416			ng No(s)		COC № 400-121853-41786.1
Cilent Contact: Carla Pearson	Phone 334-4	118-	5236	E-Mail Cheye	enne.Wh	itmire	@et.eu	rofin	ofinsus com			AL	_	Page 1 of 1
Company nternational Paper Company		F	PWSID.								uested			Job#.
Address: 601 County Road 78	Due Date Requested:						П	1		T		TIT		Preservation Codes:
City Selma	TAT Requested (days):	AD			1									A - HCL N - None B - NaOH O - AsNaO2 C - Zn Acetate R - NaOAS
State, Zip. AL, 36703	Compliance Project:	Δ Yes Δ	No	$\overline{}$	14	W/o Hg		1				111		E - NaHSO4 Q - Na2SO3
Phone. <b>3:34-4</b> 18-5236(Tel)	PO #: 16969625				No)	Aetals			total				6	F - MeOH S - H2SO4 G - Amchlor T - TSP Dodecahydrate
mail: देवी <u>a De</u> arson@ipaper.com	WO #:				List			Low Level (CVAFS) platites by 624.1 w/ 1				3.5	I - I - I - Acetone U - Acetone U - MCAA U - DI Water W - pH 4-5	
Prof. Ine: Form 1 able B Sections 1-5	Project #: 40016047				Yes	Pollutant List Metals		-	evel (C	1 - 1		111	Hiras	K - EDTA Y - Trizma L - EDA Z - other (specify)
SITE: PAVERDALE MILL	SSOW#:		ample	orlty Po	nolics		Low L	Pest PCB		111	Signalia (	Other:		
Programme Transfer	s	Sample		atrix menter, solid, aste/oil,	d Filtered S	200.8_CWA - Pric	420.4 - Total Phenolic	335.2 - Cyanide	1631E - Mercury, Low Le 624.1 - PP/TTO Volatiles	808.3 - PP/TTO P			Noningene	K - EDTA Y - Trizma L - EDA Z - other (specify) Other:  Special Instructions/Note:
Sample Identification			G=grab) BT=Tiss	ue, A=Air)		200.	420	335	163	608			To the	Special Instructions/Note:
DEN 002-003 FINAL EFF	808 23 8	3:41		ater			9.00			(2)	20 May 12			
DAYOUZ OOD FINALEIT		145		TER.	+	X		+	+	+				8
11 11		3:44	9	12.	1	-	X	1						
11 11		3:39	G	1	1	1		X		$\Box$			19	
11 11		):00	G	$\mathcal{T}$					X				1	BLANKS (Rur up
11 11	1 8	2:30	9						X				2	
" "	1 9	8:45	C							X			9	
					+	-			-					*
Possible Hazard Identification					Sam	ple Dis	sposal	(A)	fee ma	y be a	ssessed if	samples are	retain	ned longer than 1 month) chive For Months
Non-Hazard Flammable Skin Irritant P	oison B Unknow	vn F	Radiological		Spec	Retu	m To C	client ns/Q0	Requ	iremen	isposal By	Lab MM	Arc	DISPOSE Months
Empty Kit Reliaguished by:	Da	ate:			Time:	_					Method	of Shipment:	11171	717000
Relinquished by	Date/100/2	30	.00 Com	P-P-Dr	HER	leceive	Ny or	tr	ALIS	100	- Sauce	Date/Tine.	87	3 9:00 Completo June
Relinquished by	Date/Time·	~ )	Comp		R	eceiva	Oy /	/	2	1	- aug	Date/Date/	2/	3/130 Company
Relinquished by 6 M	Date Cirrie / /2	2	(C7/) Comp	37	· F	Received	by:	1	-70			Date/Title:	17	22 157/ Company
Custody Seals Intact: Custody Seal No.:	13/5/6	0/	310 0	-6:	11/6	cooler To	emperati	ure(s)	°C and C	Other Re	marks:	200	1	SID TO

9/14/2023 (Rev. 1)

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### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-241663-1

SDG Number: Form 2C Table B Sections 1-5

List Source: Eurofins Pensacola

Login Number: 241663 List Number: 1

Creator: Perez, Trina M

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2°C IR-10
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	Only a Field Blank was received for LLHg, no sample.
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	

True

True True

N/A

















<6mm (1/4").

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

Containers requiring zero headspace have no headspace or bubble is

# **Accreditation/Certification Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241663-1

SDG: Form 2C Table B Sections 1-5

### aboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-31-23
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

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# PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703

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# JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2C Table C

# **JOB NUMBER**

400-241664-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

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# **Eurofins Pensacola**

### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

### **Authorization**

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Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-241664-1 SDG: Form 2C Table C

# **Table of Contents**

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#### **Case Narrative**

Client: International Paper Company

Job ID: 400-241664-1 SDG: Form 2C Table C

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JUD: 400-241664-1

**Laboratory: Eurofins Pensacola** 

Narrative

Job Narrative 400-241664-1

Receipt

The samples were received on 8/8/2023 3:10 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8° C.

#### HPLC/IC

Method 300.0: The following sample was diluted to bring the concentration of target analytes within the calibration range: DSN002-003 FINAL EFFLUENT COMP (400-241664-1). Elevated reporting limits (RLs) are provided.

#### RAD

Methods 900.0: Gross Alpha and Gross Beta batch 623797. The detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: DSN002-003 FINAL EFFLUENT COMP (400-241664-1) and (400-241664-G-1-D DU). Analytical results are reported with the detection limit achieved.

Methods 900.0: Gross Alpha and Gross Beta batch 623797. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DSN002-003 FINAL EFFLUENT COMP (400-241664-1), (LCS 160-623797/2-A), (LCSB 160-623797/3-A), (MB 160-623797/1-A), (400-241664-G-1-D DU), (400-241664-G-1-B MS) and (400-241664-G-1-C MSBT)

Wethod 903.0: Radium-226 prep batch 160-623961. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Nater Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DSN002-003 FINAL EFFLUENT COMP (400-241664-1), (LCS 160-623961/2-A), (MB 160-623961/1-A), (810-73129-A-1-A) and (810-73129-C-1-A DU)

Method 903.0: Total Alpha Radium batch 624494. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DSN002-003 FINAL EFFLUENT COMP (400-241664-1), (LCS 160-624494/2-A), (LCSD 160-624494/3-A) and (MB 160-624494/1-A)

Method PrecSep\_0: Radium-228 Prep Batch 160-624494. The following sample was prepared at a reduced aliquot due to Matrix: DSN002-003 FINAL EFFLUENT COMP (400-241664-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-624493. The following sample was prepared at a reduced aliquot due to Matrix: DSN002-003 FINAL EFFLUENT COMP (400-241664-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

#### Metals

Method 200.8: The method blank for preparation batch 400-637559 and analytical batch 400-637997 contained Aluminum and Boron above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 200.8: The post digestion spike % recovery associated with batch 400-637997 was outside of control limits. The associated sample is: (400-242164-A-8-A PDS ^5).

Method 200.8: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-637559 and analytical batch 400-637997 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

**General Chemistry** 

Method SM 9222D: The following samples contained residual chlorine upon receipt: (400-241638-A-1) and (400-241638-A-1 DU).

#### **Case Narrative**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

### Job ID: 400-241664-1 (Continued)

#### Laboratory: Eurofins Pensacola (Continued)

Method 376.2: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 400-636573 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Sulfide in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Method 353.2: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 400-639241 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 353.2: The following samples were diluted to bring the concentration of target analytes within the calibration range: DSN002-003 FINAL EFFLUENT COMP (400-241664-B-1 MS) and (400-241664-B-1 MSD). Elevated reporting limits (RLs) are provided.

Method 350.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-639519 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 350.1: The following samples were diluted to bring the concentration of target analytes within the calibration range: DSN002-003 FINAL EFFLUENT COMP (400-241664-1) and (400-241420-E-2 MSD). Elevated reporting limits (RLs) are provided.

#### **Organic Prep**

Method 1664B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 400-638530 and analytical batch 400-638609.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## **Detection Summary**

Client: International Paper Company Project/Site: Riverdale Mill

lient Sample ID: DSN002-003 FINAL EFFLUENT COMP

Job ID: 400-241664-1

SDG: Form 2C Table C

Lab Sample ID: 400-241664-1
-----------------------------

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D M	ethod	Prep Type
Sulfate	270		10	3.9	mg/L	10	30	0.00	Total/NA
Aluminum	0.60	В	0.13	0.070	mg/L	5	20	8.00	Total/NA
Barium	0.17		0.013	0.0035	mg/L	5	20	8.00	Total/NA
Boron	0.15	J	0.25	0.090	mg/L	5	20	8.00	Total/NA
Magnesium	6.9		0.63	0.21	mg/L	5	20	8.00	Total/NA
Manganese	0.68		0.063	0.018	mg/L	5	20	8.00	Total/NA
Color	1700		50	50	Color Units	10	11	0.2	Total/NA
pH at time of analysis	7.8		0.010	0.010	SU	10	11	0.2	Total/NA
Nitrogen, Kjeldahl	7.7		0.50	0.26	mg/L	1	35	51.2	Total/NA
Nitrate Nitrite as N	4.3		0.40	0.14	mg/L	7.94	35	53.2	Total/NA
Phosphorus, Total	1.2		0.10	0.049	mg/L	1	36	55.4	Total/NA
Sulfide	0.52		0.10	0.057	mg/L	1	37	76.2	Total/NA
Nitrogen, Total Organic	7.7		0.50	0.26	mg/L	1	Ni	itrogen,Org	Total/NA

Client Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Lab Sample ID: 400-241664-2

No Detections.

## Client Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Lab Sample ID: 400-241664-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Coliform, Fecal	7000		1.0	1.0	CFU/100mL	1		SM 9222D	Total/NA

Client Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Lab Sample ID: 400-241664-4

No Detections.

## **Method Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PEN
8.00	Metals (ICP/MS)	EPA	EET PEN
110.2	Color, Colorimetric	EPA	EET PEN
1664B	HEM and SGT-HEM	1664B	EET PEN
350.1	Nitrogen, Ammonia	EPA	EET PEN
351.2	Nitrogen, Total Kjeldahl	EPA	EET PEN
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET PEN
365.4	Phosphorus, Total	EPA	EET PEN
376.2	Sulfide	EPA	EET PEN
Nitrogen,Org	Nitrogen, Organic	EPA	EET PEN
SM 4500 CI G	Chlorine, Residual	SM	EET PEN
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	EET PEN
0.00	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
903.0	Total Alpha Radium (GFPC)	EPA	EET SL
SM 9222D	Coliforms, Fecal (Membrane Filter)	SM	EET PEN
1664B	HEM and SGT-HEM (Aqueous)	1664B	EET PEN
200.8	Preparation, Total Metals	EPA	EET PEN
351.2	Nitrogen, Total Kjeldahl	EPA	EET PEN
365.2/365.3/365	Phosphorus, Total	EPA	EET PEN
Evaporation	Preparation, Evaporation	None	EET SL
PrecSep 0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

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#### **Protocol References:**

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

#### Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001 EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# **Sample Summary**

Client: International Paper Company Poject/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Water	08/08/23 08:45	08/08/23 15:10
400-241664-2	DSN002-003 FINAL EFFLUENT GRAB	Water	08/08/23 09:32	08/08/23 15:10
400-241664-3	DSN002-003 FINAL EFFLUENT GRAB	Water	08/08/23 09:35	08/08/23 15:10
400-241664-4	DSN002-003 FINAL EFFLUENT GRAB	Water	08/08/23 09:30	08/08/23 15:10

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

lient Sample ID: DSN002-003 FINAL EFFLUENT COMP Lab Sample ID: 400-241664-1 Date Collected: 08/08/23 08:45

**Matrix: Water** 

<b>Date Received:</b>	08/08/23	15:10

Analyte	Result Qualit	fier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromide	<7.9	10	7.9	mg/L			08/27/23 06:28	10
Fluoride	<2.2	10	2.2	mg/L			08/27/23 06:28	10
Sulfate	270	10	3.9	mg/L			08/27/23 06:28	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.60	В	0.13	0.070	mg/L		08/18/23 12:15	08/22/23 05:48	5
Barium	0.17		0.013	0.0035	mg/L		08/18/23 12:15	08/22/23 05:48	5
Boron	0.15	J	0.25	0.090	mg/L		08/18/23 12:15	08/22/23 12:48	5
Cobalt	<0.0028		0.013	0.0028	mg/L		08/18/23 12:15	08/22/23 05:48	5
iron	<0.40		0.63	0.40	mg/L		08/18/23 12:15	08/22/23 05:48	5
Magnesium	6.9		0.63	0.21	mg/L		08/18/23 12:15	08/22/23 05:48	5
Manganese	0.68		0.063	0.018	mg/L		08/18/23 12:15	08/22/23 05:48	5
Molybdenum	<0.023		0.075	0.023	mg/L		08/18/23 12:15	08/22/23 05:48	5
Tin	<0.0080		0.013	0.0080	mg/L		08/18/23 12:15	08/22/23 05:48	5
Titanium	<0.0090		0.013	0.0090	mg/L		08/18/23 12:15	08/22/23 05:48	5

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Color (EPA 110.2)	1700		50	50	Color Units	_		08/08/23 21:25	10
pH at time of analysis (EPA 110.2)	7.8		0.010	0.010	SU			08/08/23 21:25	10
Ammonia (EPA 350.1)	< 0.024		0.050	0.024	mg/L			09/01/23 15:01	1
Nitrogen, Kjeldahl (EPA 351.2)	7.7		0.50	0.26	mg/L		08/25/23 14:20	08/28/23 10:44	1
Nitrate Nitrite as N (EPA 353.2)	4.3		0.40	0.14	mg/L			08/30/23 22:49	7.94
Phosphorus, Total (EPA 365.4)	1.2		0.10	0.049	mg/L		08/25/23 14:23	08/28/23 12:56	1
Sulfide (EPA 376.2)	0.52		0.10	0.057	mg/L			08/10/23 09:35	1
Nitrogen, Total Organic (EPA Nitrogen, Org)	7.7		0.50	0.26	mg/L			09/05/23 13:10	1
MBAS - Surfactants (SM 5540C)	<0.067		0.10	0.067	mg/I LAS MW			08/09/23 10:25	1

						340				
Method: EPA 900	.0 - Gross A	lpha and	Gross Beta	Radioacti	vity					
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-1.13	UG	5.14	5.14	3.00	10.5	pCi/L	08/11/23 10:02	08/15/23 16:20	
Gross Beta	4.97		2.60	2.65	4.00	3.83	pCi/L	08/11/23 10:02	08/15/23 16:20	
Method: EPA 903  Analyte		Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.262		0.171	0.173	1.00	0.230	pCi/L	08/14/23 09:26	09/05/23 20:06	-
								Drangrad	Analyzed	D# F-
Carrier	%Yield	Qualifier	Limits					Prepared	Allalyzeu	Dil Fa

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241664-1

SDG: Form 2C Table C

Analyzed

lient Sample ID: DSN002-003 FINAL EFFLUENT COMP

Result Qualifier

%Yield Qualifier

0.0681 U

80.9

Date Collected: 08/08/23 08:45 Date Received: 08/08/23 15:10

Analyte

Carrier

Ba Carrier

Total Alpha Radium

Lab Sample ID: 400-241664-1

**Matrix: Water** 

Method: EPA 903.0 - Total Alpha Radium (GFPC)

Count Total Uncert. (20+/-)

0.180 Limits

30 - 110

Uncert. (20+/-) 0.180

RL **MDC** Unit 1.00 0.340 pCi/L

Prepared Analyzed 08/17/23 10:53 08/25/23 08:26

08/17/23 10:53 08/25/23 08:26

Prepared

Dil Fac

Dil Fac

Client: International Paper Company

Project/Site: Riverdale Mill

Lab Sample ID: 400-241664-2

ient Sample ID: DSN002-003 FINAL EFFLUENT GRAB Date Collected: 08/08/23 09:32 Matrix: Water

Job ID: 400-241664-1

SDG: Form 2C Table C

Date Received: 08/08/23 15:10

ĺ	General Chemistry									
1	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1	HEM (Oil and Grease) (1664B)	<1.3		3.8	1.3	mg/L		08/25/23 12:08	08/25/23 16:19	1

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241664-1

SDG: Form 2C Table C

lient Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Lab Sample ID: 400-241664-3

**Matrix: Water** 

Date Collected: 08/08/23 09:35 Date Received: 08/08/23 15:10

Method: SM 9222D - Coliforn	ns, Fecal (Me	mbrane Filte	er)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Coliform, Fecal	7000		1.0	1.0	CFU/100mL			08/08/23 15:45

Dil Fac

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

C Table C

lient Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Lab Sample ID: 400-241664-4

Matrix: Water

Date Collected: 08/08/23 09:30 Date Received: 08/08/23 15:10

 General Chemistry
 Analyte
 Result Chlorine, Total Residual (SM 4500 Cl
 Qualifier
 RL MDL Unit
 D Prepared
 Analyzed Analyzed Dil Fac

 Chlorine, Total Residual (SM 4500 Cl
 <0.057</td>
 0.10
 0.057 mg/L
 0.8/09/23 08:50
 1

7

13

14

# **Definitions/Glossary**

Client: International Paper Company Project/Site: Riverdale Mill *Qualifiers* 

**Qualifier Description** 

Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count

Metals Qualifier

TEQ

Job ID: 400-241664-1 SDG: Form 2C Table C

-	
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
<b>General Che</b>	mistry
Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Rad	
Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.
Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
n n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
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)
TEO	Tavisity Equivalent Quatient (Diavin)

### Lab Chronicle

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

Lab Sample ID: 400-241664-1

Matrix: Water

## Client Sample ID: DSN002-003 FINAL EFFLUENT COMP

Date Collected: 08/08/23 08:45 Date Received: 08/08/23 15:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	IXIII	10	10 mL	10 mL	638754	08/27/23 06:28	LHB	EET PEN
Total/NA	Prep	200.8			10 mL	50 mL	637559	08/18/23 12:15	KWN	EET PEN
Total/NA	Analysis	200.8		5			637997	08/22/23 05:48	NTH	EET PEN
Total/NA	Prep	200.8			10 mL	50 mL	637559	08/18/23 12:15	KWN	EET PEN
Total/NA	Analysis	200.8		5			638017	08/22/23 12:48	NTH	EET PEN
Total/NA	Analysis	110.2		10			636438	08/08/23 21:25	DEK	EET PEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	639519	09/01/23 15:01	CAC	EET PEN
Total/NA	Prep	351.2			25 mL	25 mL	638571	08/25/23 14:20	VB	EET PEN
Total/NA	Analysis	351.2		1			638796	08/28/23 10:44	VB	EET PEN
Total/NA	Analysis	353.2		7.94	5 mL	5 mL	639241	08/30/23 22:49	DEK	EET PEN
Total/NA	Prep	365.2/365.3/365			25 mL	25 mL	638573	08/25/23 14:23	VB	EET PEN
Total/NA	Analysis	365.4		1	10 mL	10 mL	638861	08/28/23 12:56	VB	EET PEN
Total/NA	Analysis	376.2		1	7.5 mL	7.5 mL	636573	08/10/23 09:35	SF	EET PEN
Total/NA	Analysis	Nitrogen, Org		1			639739	09/05/23 13:10	KWS	EET PEN
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	636283	08/09/23 10:25	SF	EET PEN
Total/NA	Prep	Evaporation			46.00 mL	1.0 g	623797	08/11/23 10:02	DQC	EET SL
Total/NA	Analysis	900.0		1			624212	08/15/23 16:20	SWS	EET SL
Total/NA	Prep	PrecSep_0			499.93 mL	1.0 g	624494	08/17/23 10:53	KAC	EET SL
Total/NA	Analysis	903.0		1			625591	08/25/23 08:26	FLC	EET SL
Total/NA	Prep	PrecSep-21			511.14 mL	1.0 g	623961	08/14/23 09:26	SRH	EET SL
Total/NA	Analysis	903.0		1	1.0 mL	1.0 mL	626662	09/05/23 20:06	SCB	EET SL

Client Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Date Collected: 08/08/23 09:32 Date Received: 08/08/23 15:10 Lab Sample ID: 400-241664-2 Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1664B			1046 mL	1000 mL	638530	08/25/23 12:08	AR	EET PEN
Total/NA	Analysis	1664B		1			638609	08/25/23 16:19	AR	EET PEN

Client Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Date Collected: 08/08/23 09:35 Date Received: 08/08/23 15:10 Lab Sample ID: 400-241664-3 Matrix: Water

Lab Sample ID: 400-241664-4

Matrix: Water

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 9222D		1			636441	08/08/23 15:45	AT	EET PEN
							Completed:	08/09/23 13:47	1	

Client Sample ID: DSN002-003 FINAL EFFLUENT GRAB

d. 00/00/02 00:20

Date Collected: 08/08/23 09:30

Date Received: 08/08/23 15:10

Date Receive	u. 00/00/23 1	5.10			<u> </u>					
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI G		1	10 mL	10 mL	636448	08/09/23 08:50	CAC	EET PEN

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

### **Lab Chronicle**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

#### Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001 EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241664-1

SDG: Form 2C Table C

PLC/IC

Analysis Batch: 638754
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	300.0	
MB 400-638754/55	Method Blank	Total/NA	Water	300.0	
LCS 400-638754/59	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-638754/60	Lab Control Sample Dup	Total/NA	Water	300.0	

#### Metals

### **Prep Batch: 637559**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	200.8	
MB 400-637559/1-A ^5	Method Blank	Total/NA	Water	200.8	
LCS 400-637559/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	

### Analysis Batch: 637997

Lab Sample ID 400-241664-1	Client Sample ID DSN002-003 FINAL EFFLUENT COMP	Prep Type Total/NA	Matrix Water	Method 200.8	Prep Batch 637559
MB 400-637559/1-A ^5	Method Blank	Total/NA	Water	200.8	637559
LCS 400-637559/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	637559

### Analysis Batch: 638017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	200.8	637559

### Analysis Batch: 638191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-637559/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	637559

### **General Chemistry**

### Analysis Batch: 636283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	SM 5540C	THE PERSON NAMED IN
MB 400-636283/3	Method Blank	Total/NA	Water	SM 5540C	
LCS 400-636283/4	Lab Control Sample	Total/NA	Water	SM 5540C	
MRL 400-636283/5	Lab Control Sample	Total/NA	Water	SM 5540C	

### Analysis Batch: 636438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	110.2	
MB 400-636438/1	Method Blank	Total/NA	Water	110.2	
LCS 400-636438/3	Lab Control Sample	Total/NA	Water	110.2	

### Analysis Batch: 636448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-4	DSN002-003 FINAL EFFLUENT GRAB	Total/NA	Water	SM 4500 CI G	
MB 400-636448/4	Method Blank	Total/NA	Water	SM 4500 CI G	
LCS 400-636448/5	Lab Control Sample	Total/NA	Water	SM 4500 CI G	
MRL 400-636448/3	Lab Control Sample	Total/NA	Water	SM 4500 CI G	
400-241664-4 DU	DSN002-003 FINAL EFFLUENT GRAB	Total/NA	Water	SM 4500 CI G	

# **QC Association Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

### eneral Chemistry

### Analysis Batch: 636573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	376.2	
MB 400-636573/3	Method Blank	Total/NA	Water	376.2	
LCS 400-636573/4	Lab Control Sample	Total/NA	Water	376.2	
MRL 400-636573/2	Lab Control Sample	Total/NA	Water	376.2	

### Prep Batch: 638530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-2	DSN002-003 FINAL EFFLUENT GRAB	Total/NA	Water	1664B	
MB 400-638530/1-A	Method Blank	Total/NA	Water	1664B	
LCS 400-638530/2-A	Lab Control Sample	Total/NA	Water	1664B	
LCSD 400-638530/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	



### **Prep Batch: 638571**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	351.2	
MB 400-638571/1-A	Method Blank	Total/NA	Water	351.2	
CS 400-638571/2-A	Lab Control Sample	Total/NA	Water	351.2	
400-241664-1 MS	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	351.2	
400-241664-1 MSD	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	351.2	

### **Prep Batch: 638573**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	365.2/365.3/365	
MB 400-638573/1-A	Method Blank	Total/NA	Water	365.2/365.3/365	
LCS 400-638573/2-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
400-241664-1 MS	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	365.2/365.3/365	
400-241664-1 MSD	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	365.2/365.3/365	

### Analysis Batch: 638609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-2	DSN002-003 FINAL EFFLUENT GRAB	Total/NA	Water	1664B	638530
MB 400-638530/1-A	Method Blank	Total/NA	Water	1664B	638530
LCS 400-638530/2-A	Lab Control Sample	Total/NA	Water	1664B	638530
LCSD 400-638530/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	638530

### Analysis Batch: 638796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	351.2	638571
MB 400-638571/1-A	Method Blank	Total/NA	Water	351.2	638571
LCS 400-638571/2-A	Lab Control Sample	Total/NA	Water	351.2	638571
MRL 400-638796/9	Lab Control Sample	Total/NA	Water	351.2	
400-241664-1 MS	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	351.2	638571
400-241664-1 MSD	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	351.2	638571

### Analysis Batch: 638861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	365.4	638573
MB 400-638573/1-A	Method Blank	Total/NA	Water	365.4	638573
LCS 400-638573/2-A	Lab Control Sample	Total/NA	Water	365.4	638573
MRL 400-638861/10	Lab Control Sample	Total/NA	Water	365.4	
400-241664-1 MS	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	365.4	638573

## **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

### eneral Chemistry (Continued)

Analy	/sis	Batch:	638861	(Continued)
Allai	313	Datell.	000001	Continueu

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1 MSD	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	365.4	638573

### Analysis Batch: 639241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	353.2	
MB 400-639241/47	Method Blank	Total/NA	Water	353.2	
LCS 400-639241/48	Lab Control Sample	Total/NA	Water	353.2	
MRL 400-639241/18	Lab Control Sample	Total/NA	Water	353.2	
400-241664-1 MS	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	353.2	
400-241664-1 MSD	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	353.2	



### Analysis Batch: 639519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	350.1	
MB 400-639519/24	Method Blank	Total/NA	Water	350.1	
LCS 400-639519/25	Lab Control Sample	Total/NA	Water	350.1	
MRL 400-639519/18	Lab Control Sample	Total/NA	Water	350.1	



### Analysis Batch: 639739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	Nitrogen,Org	

### Rad

### Prep Batch: 623797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	Evaporation	
MB 160-623797/1-A	Method Blank	Total/NA	Water	Evaporation	
LCS 160-623797/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSB 160-623797/3-A	Lab Control Sample	Total/NA	Water	Evaporation	
400-241664-1 MS	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	Evaporation	
400-241664-1 MSBT	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	Evaporation	
400-241664-1 DU	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	Evaporation	

### **Prep Batch: 623961**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	PrecSep-21	
MB 160-623961/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-623961/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

### Prep Batch: 624494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-1	DSN002-003 FINAL EFFLUENT COMP	Total/NA	Water	PrecSep_0	
MB 160-624494/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-624494/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-624494/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

### Biology

### Analysis Batch: 636441

 Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241664-3	DSN002-003 FINAL EFFLUENT GRAB	Total/NA	Water	SM 9222D	

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## **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

iology (Continued)

**Analysis Batch: 636441 (Continued)** 

Lab Sample ID **Client Sample ID Prep Type** Matrix Method **Prep Batch** MB 400-636441/1 Method Blank Total/NA Water SM 9222D LCS 400-636441/2 Lab Control Sample Total/NA Water SM 9222D

### QC Sample Results

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

### lethod: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-638754/55

Lab Sample ID: LCS 400-638754/59

**Matrix: Water** 

**Matrix: Water** 

**Matrix: Water** 

Analysis Batch: 638754

Client	Sample	ID:	Method	Blank
	Dr	on '	Type: To	tal/NA

MB MB Analyte Result Qualifier RL **MDL** Unit Prepared Dil Fac Analyzed Bromide < 0.79 1.0 0.79 mg/L 08/26/23 23:47 Fluoride < 0.22 1.0 0.22 mg/L 08/26/23 23:47 Sulfate < 0.39 1.0 08/26/23 23:47 0.39 mg/L

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 638754

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Bromide 10.0 9.07 ma/L 91 90 - 110 90 - 110 Fluoride 10.0 9.85 mg/L 98 Sulfate 10.0 9.97 mg/L 100 90 - 110

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 638754

LCSD LCSD %Rec RPD Spike Added Limits RPD Analyte Result Qualifier Unit D %Rec Limit 90 - 110 **Bromide** 10.0 9.58 mg/L 96 5 15 Fluoride 98 90 - 110 10.0 9.81 mq/L 0 15 Sulfate 103 90 - 110 10.0 10.3 mg/L 3 15

### Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: LCSD 400-638754/60

Lab Sample ID: MB 400-637559/1-A ^5

Matrix: Water

Analysis Batch: 637997

Client	Sample	ID: Meth	od	<b>Blank</b>	

Prep Type: Total/NA Prep Batch: 637559

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.0143	J	0.025	0.014	mg/L		08/18/23 12:15	08/22/23 03:21	5
Barium	< 0.00070		0.0025	0.00070	mg/L		08/18/23 12:15	08/22/23 03:21	5
Boron	0.0195	J	0.050	0.018	mg/L		08/18/23 12:15	08/22/23 03:21	5
Cobalt	< 0.00056		0.0025	0.00056	mg/L		08/18/23 12:15	08/22/23 03:21	5
Iron	< 0.079		0.13	0.079	mg/L		08/18/23 12:15	08/22/23 03:21	5
Magnesium	< 0.041		0.13	0.041	mg/L		08/18/23 12:15	08/22/23 03:21	5
Manganese	< 0.0035		0.013	0.0035	mg/L		08/18/23 12:15	08/22/23 03:21	5
Molybdenum	< 0.0045		0.015	0.0045	mg/L		08/18/23 12:15	08/22/23 03:21	5
Tin	< 0.0016		0.0025	0.0016	mg/L		08/18/23 12:15	08/22/23 03:21	5
Titanium	<0.0018		0.0025	0.0018	mg/L		08/18/23 12:15	08/22/23 03:21	5

Lab Sample ID: LCS 400-637559/2-A ^5

**Matrix: Water** 

Analysis Batch: 637997

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 637559

	Spike	LCS LC	cs			%Rec	
Analyte	Added	Result Qu	ualifier Unit	D	%Rec	Limits	
Aluminum	0.500	0.500	mg/L		100	85 - 115	
Barium	0.0500	0.0568	mg/L		114	85 - 115	
Cobalt	0.0500	0.0512	mg/L		102	85 - 115	
Iron	5.00	5.27	mg/L		105	85 - 115	
Magnesium	5.00	5.03	mg/L		101	85 - 115	

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## **QC Sample Results**

Client: International Paper Compai Project/Site: Riverdale Mill	ny								Job ID: 400- DG: Form 2	
ethod: 200.8 - Metals (ICF	P/MS) (Co	ntinue	d)							
Lab Sample ID: LCS 400-63755 Matrix: Water Analysis Batch: 637997	9/2-A ^5		Spike	ıce	LCS	Client	Sa	mple ID:	Lab Contro Prep Type: Prep Batcl %Rec	Total/NA
A			-			11-4	-	0/ 🗖		
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	
Manganese			0.500	0.517		mg/L		103	85 - 115	
Molybdenum			0.0500	0.0495		mg/L		99	85 - 115	
Tin			0.0500	0.0494		mg/L		99	85 - 115	
Titanium			0.0500	0.0533		mg/L		107	85 - 115	
Lab Sample ID: LCS 400-63755 Matrix: Water Analysis Batch: 638191	9/2-A ^5		Called	1.00	1.00	Client	Sai	mple ID:	Lab Control Prep Type: Prep Batcl %Rec	Total/NA
Analysis			Spike		LCS	Unit	-	9/ Bao		
Analyte Boron			0.100	0.103	Qualifier	Unit mg/L	ט	%Rec 103	85 - 115	
BOTOTI			0.100	0.103		IIIg/L		103	03-113	
Method: 110.2 - Color, Colo	rimetric									
Matrix: Water Analysis Batch: 636438	MB	MB Qualifier		RL	MDL Unit	D	P	repared	Prep Type:	Dil Fac
Analyte Color	<5.0	Qualifier		5.0	5.0 Color			repared	08/08/23 21:	_
pH at time of analysis	6.02		0		0.010 SU	OTHES			08/08/23 21:	
Lab Sample ID: LCS 400-63643 Matrix: Water Analysis Batch: 636438	8/3					Client	Sai	mple ID:	Lab Contro Prep Type:	
			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Color			35.0	33.0		Color Units	_	94	90 - 110	
Method: 1664B - HEM and	CCT HE									
Method: 1664B - HEM and	SGI-HEN	Λ								
Lab Sample ID: MB 400-638530 Matrix: Water Analysis Batch: 638609	)/1-A MB	мв					Clie	ent Samp	Prep Type: Prep Batcl	Total/NA
Analyte	Result	Qualifier		RL	MDL Unit	D	P	repared	Analyzed	Dil Fac
HEM (Oil and Grease)	<1.4			4.0	1.4 mg/L		08/2	25/23 12:08	08/25/23 16:	19
Lab Sample ID: LCS 400-63853 Matrix: Water Analysis Batch: 638609	60/2-A		Spike		LCS			mple ID:	Lab Control Prep Type: Prep Batch %Rec Limits	Total/NA
Analyte			Added		Qualifier	Unit	D		78 - 114	
HEM (Oil and Grease)			39.9	34.30		mg/L		86	10-114	
Lab Sample ID: LCSD 400-6385 Matrix: Water	530/3-A				(	Client Sam	ple	ID: Lab	Control Sa Prep Type:	

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**Prep Batch: 638530** 

%Rec

Limits

78 - 114

D %Rec

RPD Limit

8

RPD

LCSD LCSD

31.80

Result Qualifier Unit

mg/L

Spike

Added

39.9

Analysis Batch: 638609

HEM (Oil and Grease)

Analyte

RL

0.050

Spike

Added

3.00

Spike

Added

0.0500

Spike

Added

10.0

Spike

Added

4.00

Spike

MDL Unit

0.024 mg/L

LCS LCS

MRL MRL

0.0490 J

RL

0.50

Result Qualifier

**MDL** Unit

0.26 mg/L

LCS LCS

MS MS

11.9

Result Qualifier

10.8

Result Qualifier

2 98

Result Qualifier

Unit

mg/L

Unit

mg/L

Unit

mg/L

Unit

mg/L

мв мв

MB MB Result Qualifier

<0.26

Sample Sample

7.7

Result Qualifier

Result Qualifier

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 638571

Prep Type: Total/NA Prep Batch: 638571

Analyzed

Client Sample ID: Method Blank

Analyzed

09/01/23 15:00

Client Sample ID: Lab Control Sample

%Rec

Limits

Client Sample ID: Lab Control Sample

90 - 110

%Rec

Limits

50 - 150

Client Sample ID: Method Blank

08/25/23 14:19 08/28/23 10:42

Client Sample ID: Lab Control Sample

%Rec

Limits

90 - 110

%Rec

Prepared

99

%Rec

Prepared

%Rec

%Rec

108

98

D %Rec

D

Dil Fac

Client Sample ID: DSN002-003 FINAL EFFLUENT COMP Prep Type: Total/NA Prep Batch: 638571

Dil Fac

Limits 90 - 110

Client Sample ID: DSN002-003 FINAL EFFLUENT COMP Prep Type: Total/NA Prep Batch: 638571

%Rec RPD Limit

Limits RPD 90 - 110 22

ethod: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 400-639519/24

Matrix: Water

Analysis Batch: 639519

Analyte

Ammonia < 0.024 Lab Sample ID: LCS 400-639519/25

**Matrix: Water** Analysis Batch: 639519

**Analyte** 

Lab Sample ID: MRL 400-639519/18 **Matrix: Water** 

Ammonia

Analysis Batch: 639519

**Analyte** 

Ammonia Method: 351.2 - Nitrogen, Total Kjeldahi

Lab Sample ID: MB 400-638571/1-A

**Matrix: Water** 

Analysis Batch: 638796

Analyte Nitrogen, Kjeldahl

Lab Sample ID: LCS 400-638571/2-A

**Matrix: Water** Analysis Batch: 638796

**Analyte** Nitrogen, Kjeldahl

Lab Sample ID: 400-241664-1 MS **Matrix: Water** Analysis Batch: 638796

**Analyte** Nitrogen, Kjeldahl

**Matrix: Water** Analysis Batch: 638796

Sample Sample Analyte Nitrogen, Kjeldahl

Lab Sample ID: 400-241664-1 MSD

Result Qualifier 7.7

Added

4.00

MSD MSD Qualifier Result 11.9

Unit mg/L

D %Rec 106

Eurofins Pensacola

Analysis Batch: 638796

Spike MRL MRL %Rec **Analyte** Added Result Qualifier Unit %Rec Limits Nitrogen, Kjeldahl 0.500 0.597 mg/L 119 50 - 150

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 400-639241/47 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 639241

MB MB Result Qualifier RL **MDL** Unit Prepared **Analyte** Analyzed Dil Fac Nitrate Nitrite as N 0.050 0.018 mg/L 08/30/23 22:02 < 0.018

Lab Sample ID: LCS 400-639241/48 Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA

Analysis Batch: 639241

Spike LCS LCS %Rec Added Result Qualifier Limits Analyte Unit D %Rec Nitrate Nitrite as N 1.00 0.944 mg/L 94 90 - 110

Lab Sample ID: MRL 400-639241/18 Client Sample ID: Lab Control Sample **Matrix: Water Prep Type: Total/NA** Analysis Batch: 639241

MRL MRL %Rec Spike Added Result Qualifier %Rec Limits Unit D **Analyte** Nitrate Nitrite as N 0.0500 0.0600 50 - 150 120 mg/L

Client Sample ID: DSN002-003 FINAL EFFLUENT COMP Lab Sample ID: 400-241664-1 MS **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 639241

Spike MS MS %Rec Sample Sample Result Qualifier Added Result Qualifier Unit %Rec Limits **Analyte** 90 - 110 Nitrate Nitrite as N 0.993 5.20 4 4.3 mg/L

Client Sample ID: DSN002-003 FINAL EFFLUENT COMP Lab Sample ID: 400-241664-1 MSD **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 639241

RPD Sample Sample Spike MSD MSD %Rec Limits RPD Limit Result Qualifier Added Result Qualifier Unit %Rec Analyte 4.3 0.993 5.26 4 mg/L Nitrate Nitrite as N

Method: 365.4 - Phosphorus, Total

Client Sample ID: Method Blank Lab Sample ID: MB 400-638573/1-A Prep Type: Total/NA **Matrix: Water** Prep Batch: 638573 Analysis Batch: 638861

MB MB

Dil Fac RL **MDL** Unit Prepared **Analyzed** Analyte Result Qualifier 08/25/23 14:23 08/28/23 12:53 < 0.049 0.10 0.049 mg/L Phosphorus, Total

Client Sample ID: DSN002-003 FINAL EFFLUENT COMP

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Lab Sample ID: 400-241664-1 MSD

### ethod: 365.4 - Phosphorus, Total (Continued)

Lab Sample ID: LCS 400-638573/2-A	Client Sample ID: Lab Control Sample
Matrix: Water	Prep Type: Total/NA
Analysis Batch: 638861	Prep Batch: 638573

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Phosphorus, Total	1.98	1.93		ma/l		97	75_113	

Lab Sample ID: 400-24166		Clien	t Sample	ID: DSI	N002-	003 FIN	AL EFFLUENT COMP		
Matrix: Water Analysis Batch: 638861									Prep Type: Total/NA Prep Batch: 638573
	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Phosphorus, Total	1.2		0.400	1.58		mg/L		93	72 - 120

Matrix: Water Analysis Batch: 638861									Prep Type		
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Phosphorus, Total	1.2		0.400	1.58		mg/L		93	72 - 120	0	27

Matrix: Water Analysis Batch: 638861				Cile	nt Sar	mpie in		pe: Total/NA
	Spike	MRL	MRL				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Phosphorus, Total	0.100	0.0910	J	mg/L		91	50 - 150	

### Method: 376.2 - Sulfide

Lab Sample ID: MB 400-636573/3

Lab Sample ID: LCS 400-636448/5

Matrix: Water Analysis Batch: 636573								Prep Type: To	
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<0.057		0.10	0.057	mg/L			08/10/23 09:35	1

### Method: SM 4500 Cl G - Chlorine, Residual

	Lab Sample ID: MB 400-636448/4 Matrix: Water Analysis Batch: 636448							Client Sam	ple ID: Method Prep Type: To	
	•	MB	MB							
1	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chlorine, Total Residual	<0.057		0.10	0.057	mg/L			08/09/23 08:50	1

Ma	trix: Water							Prep Type: Total/NA
An	alysis Batch: 636448							
		Spike	LCS	LCS				%Rec
Ana	llyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chlo	orine, Total Residual	1.17	1.23		mg/L		105	85 - 115

### lethod: SM 4500 CI G - Chlorine, Residual (Continued)

Lab Sample ID: MRL 400-636448/3 Matrix: Water

Lab Sample ID: 400-241664-4 DU

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 636448

		Spike	MRL	MRL				%Rec	
1	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Chlorine, Total Residual	0.117	0.120		mg/L		103	50 - 150	

Client Sample ID: DSN002-003 FINAL EFFLUENT GRAB

Prep Type: Total/NA

Analysis Batch: 636448

**Matrix: Water** 

Sample Sample DU DU RPD Analyte Result Qualifier Result Qualifier Unit RPD Limit Chlorine, Total Residual < 0.057 < 0.057 mg/L NC 10

### Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 400-636283/3 Client Sample ID: Method Blank Matrix: Water Prep Type: Total/NA

Analysis Batch: 636283

MR MR

	****								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MBAS - Surfactants	< 0.067		0.10	0.067	mg/I LAS MW			08/08/23 10:30	1
					340				

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 400-636283/4 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 636283

1	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
MBAS - Surfactants	0.500	0.456		mg/I LAS	_	91	90 - 110	

Client Sample ID: Lab Control Sample Lab Sample ID: MRL 400-636283/5 **Matrix: Water** Prep Type: Total/NA Analysis Batch: 636283

1		Spike	MRL	MRL				%Rec	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	MBAS - Surfactants	0.100	0.0880	J	mg/L		88	75 - 125	

### Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Client Sample ID: Method Blank Lab Sample ID: MB 160-623797/1-A **Matrix: Water** Prep Type: Total/NA Prep Batch: 623797 Analysis Batch: 624600 Count Total

	MB	МВ	Uncert.	Uncert.						
Analyte		Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.3566	U	0.648	0.649	3.00	1.12	pCi/L	08/11/23 10:02	08/17/23 14:33	1
Gross Beta	0.2104	U	0.519	0.520	4.00	0.884	pCi/L	08/11/23 10:02	08/17/23 14:33	1

Job ID: 400-241664-1 SDG: Form 2C Table C

ethod: 900.0 - Gross Alpha and Gross Beta Radioactivity (Continued)

Lab Sample ID: LCS 160-623797/2-A	Client Sample ID: Lab Control Sample
Matrix: Water	Prep Type: Total/NA
Analysis Batch: 624092	Prep Batch: 623797

Prep Batch: 623797

				Total						
	Spike	LCS	LCS	Uncert.					%Rec	
Analyte	Added	Result	Qual	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	
Gross Alpha	49.6	50.53		7.43	3.00	1.78	pCi/L	102	75 - 125	

Lab Sample ID: LCSB 160-623797/3-A Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA

Analysis Batch: 624092 Prep Batch: 623797

			Total						
	Spike	LCSB LCSB	Uncert.					%Rec	
Analyte	Added	Result Qual	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	
Gross Beta	72.8	72.33	7.77	4.00	0.895	pCi/L	99	75 - 125	

Lab Sample ID: 400-241664-1 MS Client Sample ID: DSN002-003 FINAL EFFLUENT COMP **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 624212 Prep Batch: 623797

						Total						
	Sample	Sample	Spike	MS	MS	Uncert.					%Rec	
Analyte	Result	Qual	Added	Result	Qual	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	
Gross Alpha	-1.13	UG	216	151.9		26.1	3.00	11.5	pCi/L	70	60 - 140	

Lab Sample ID: 400-241664-1 MSBT Client Sample ID: DSN002-003 FINAL EFFLUENT COMP **Matrix: Water** 

Prep Type: Total/NA Analysis Batch: 624212 Prep Batch: 623797 Total

						- Otal						
	Sample	Sample	Spike	MSBT	MSBT	Uncert.					%Rec	
Analyte	Result	Qual	Added	Result	Qual	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	
Gross Beta	4.97		316	322.0		34.5	4.00	3.56	pCi/L	100	60 - 140	_

Lab Sample ID: 400-241664-1 DU Client Sample ID: DSN002-003 FINAL EFFLUENT COMP Matrix: Water Prep Type: Total/NA **Prep Batch: 623797** Analysis Batch: 624212

					Total					
	Sample	Sample	DU	DU	Uncert.					RER
Analyte	Result	Qual	Result	Qual	(2σ+/-)	RL	MDC	Unit	RER	Limit
Gross Alpha	-1.13	UG	-0.6465	UG	7.25	3.00	14.0	pCi/L	0.04	1
Gross Beta	4.97		9.058		3.04	4.00	3.66	pCi/L	0.72	1

### Method: 903.0 - Radium-226 (GFPC)

Client Sample ID: Method Blank Lab Sample ID: MB 160-623961/1-A Prep Type: Total/NA **Matrix: Water Prep Batch: 623961** Analysis Batch: 626664 Count Total

MB MB Uncert. Uncert. Dil Fac Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL MDC Unit Prepared Analyzed -0.01024 U 0.0599 0.0599 1.00 0.126 pCi/L 08/14/23 09:26 09/05/23 20:04 Radium-226

	MB	MB			
Carrier	%Yield	Qualifier	Limits	Prepared Analyzed	Dil Fac
Ba Carrier	89.5		30 - 110	08/14/23 09:26 09/05/23 20:04	1

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Lab Sample ID: LCS 160-623961/2-A

ethod: 903.0 - Radium-226 (GFPC) (Continued)

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Dil Fac

Dil Fac

Analysis Batch: 627058 **Prep Batch: 623961** Total LCS LCS Spike Uncert. %Rec Analyte Added Result Qual  $(2\sigma + / -)$ RL **MDC** Unit %Rec Limits Radium-226 1.06 1.00 0.119 pCi/L 90 75 - 125 11.3 10.18 LCS LCS Carrier %Yield Qualifier Limits Ba Carrier 92.4 30 - 110

Method: 903.0 - Total Alpha Radium (GFPC)

Lab Sample ID: MB 160-624494/1-A Matrix: Water

Analysis Batch: 625591

Analyte

Carrier

Ba Carrier

Analyte

Radium

Carrier

Total Alpha

Total Alpha Radium

Matrix: Water

Analysis Batch: 625591

Matrix: Water

Count Total мв мв Uncert. Uncert. Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ 0.06963 U 0.139 0.139

MB MB %Yield Qualifier Limits 86.5

30 - 110

LCS LCS

Result Qual

11.15

Prepared Analyzed 08/17/23 10:53 08/25/23 08:26

Prepared

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 624494

Analyzed

Prep Batch: 624494

Total

RL

1.00

Uncert.  $(2\sigma + / -)$ 1.25

RL 1.00

**MDC** Unit

0.246 pCi/L

**MDC** Unit 0.152 pCi/L

%Rec 98

%Rec

Limits

Client Sample ID: Method Blank

08/17/23 10:53 08/25/23 08:26

75 - 125

LCS LCS %Yield Qualifier 85.5

Lab Sample ID: LCS 160-624494/2-A

Limits 30 - 110

Spike

Added

11.3

Ba Carrier Lab Sample ID: LCSD 160-624494/3-A

**Matrix: Water** Analysis Batch: 625591 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 624494

Total RFR Spike LCSD LCSD Uncert. %Rec Added Result Qual  $(2\sigma + / -)$ RL **MDC** Unit %Rec Limits RER Limit **Analyte** 75 - 125 0.06 11.00 1.24 1.00 0.188 pCi/L 11.3 Total Alpha Radium

LCSD LCSD Carrier %Yield Qualifier Limits 30 - 110 82.6 Ba Carrier

## **QC Sample Results**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

lethod: SM 9222D - Coliforms, Fecal (Membrane Filter)

Lab Sample ID: MB 400-636441/1 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 636441

MB MB

Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Coliform, Fecal 1.0 1.0 CFU/100mL 08/08/23 14:42 <1.0

3355 McLemore Drive Pensacola, FL 32514 Phone: 850-474-1001 Fax: 850-478-2671

## **Chain of Custody Record**



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**Environment Testing** 

Client Information	Sampler CADL	AC.	EADS		hitmire	, Cheye	enne	R 4	400-2	24166	4 COC	n	er Trac	ing No	(s)			COC No 400-121854-41788 1
Client Information Client Contact: Carla Pearson	Phone 334	- 418	5236		Mail hevenr	ne.Whitr	nire@	et.eu	rofin	sus.co	m	State	of Orig	in.	Y			Page Page 1 of 1
Company		1.0	PWSID								s Red	11109	ted					Job #
International Paper Company Address	Due Date Requeste	ed:			1				7	alysi	3 Ket	lues	leu	T	T			Preservation Codes:
601 County Road 78	TAT Requested (da	num):			-11												1	A - HCL M - Hexane N - None
Selma	TAT Requested (da	KAD			1												0	C - Zn Acetate P - Na204S
State, Zip AL, 36703	Compliance Project	t: A Yes	No.		- 1						125				1			D - Nitric Acid  E - NaHSO4  Q - Na2SO3  R - Na2S2O3
Phone	PO#										10 S	2			SAMPLE	Residua		G - Amchior S - H2SO4
334-418-5236(Tel)	16969625 WO#:				No.						Fluoride & Sulfate	Intan			3	I Rea		I - Ice U - Acetone
Carla.Pearson@ipaper.com					30 50	2	Beta					Pol			9	. Total	1	J - DI Water W - pH 4-5 K - EDTA Y - Trizma
Project Name. Form 2C Table C	Project # 40016047				e (Ye	Ä	& Gross	Org			omide,	venti		1		Chlorine,		L - EDA Z - other (specify)
P-PIVERDALE MILL (PDALE)	SSOW#:				Sampl	R R	Alpha &	Nitrogen,	5.4	10880	8D - Bro	Non-Con	ants	1	Sulfit	B-Chi	0*40	Other:
,			Sample	Matrix (www.ter,		903.0, 903.0_TAR	Fross A	11.2, NH	es, 365.4	- Oil & Grei	300_ORGFM_28D	WA-N	Surfactants	Sulfide	DOSO3 B	Chlor	Other	
		Sample	Type (C=comp,	S~solid, O=waste/oil	-10	3.0, 90	900.0 - Gross	350.1, 351.2,	353.2 Pres,	1664B -	OR	200.8 CWA-			SMAEOD.	SM4500		
Sample Identification	Sample Date	Time	G=grab)	BT=Tissue, A=			old, makes	AMPROX 2	X-MC - V	NUMBER OF	STATE OF THE PERSON NAMED IN	- Industry	CONTRACTOR OF THE PERSON NAMED IN	100	1 ( S C )	on Distriction		Special Instructions/Note:
DALAGO AGO TIMO FOR	0000	Quit7	Preserv	tion Code		× 0	D	S	5 製料	N	N.	D	N. Company	III.		N		
DSN 002-003 FINAL EFF	80023		0	Water	$\rightarrow$	X			-	_	-			+	+			
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11		9:32	G	1						X								
()		8:45	C	1						1	1							
11	1	11	~		+				1	-	X			+				
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			2	1	+H	+		-	+	-	+	Λ		-	1	+		
((	1	9:35	G	1	$\perp$				_	1	-			1	\_			
11		8:45	C	1	Ш								X	_				
11	,	9:30	9													X		
Possible Hazard Identification															ples a	re re	dine	ed longer than 1 month)
Non-Hazard Flammable Skin Irritant Pois Deliverable Requested: I, II, III, IV, Other (specify)	on B Unkr	nown	Radiologica	1/	-	Special	etur	To C	lient	Pegi	ireme	Dispo	sal By	Lab		1	\ <i>rchi</i>	ive For Months
		,				Special	msu	uction	5/020	requ	meme	11.5.	47	H	-1	10	H	H. DISPOSE
Empty Kit Relifiquished by:	To	Date:		10	Tim		1			-	7	-	Metho		pment		-	,
Relinquisher by	Date/Time	23 9	35	Company	DAL!	E Reco	(L	ist	M	W	Xa	1-1	Du	2	ate/Tien	OF	32	13 9:35 mgn
Relinquished by	Date/Time			Company		Rece	eived to	2	. /	B	en		-(	D	ate/Tim	10	7	22 107 Company 1110
Relinquisher by	Date/Tirge/	7	1=71)	Company	7	Rec	eived b	Y		-				0	ate/Tim	1	5	2 10 10000
In Man	8/8/2	5 1	1570	Company	11/	162	4	_		-	200-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0			1	1/	0/	4	5/3/000/2
Custody Seals Intact: Custody Seal No : Δ Yes Δ No	,					Cool	er Ten	peratu	re(s)	C and C	Other Re	marks		4	8	1		IK 10

9/11/2023





## **Chain of Custody Record**

eu	ro	fi	n	S

Environment Testing

Pensacola, FL 32514 Phone: 850-474-1001 Fax: 850-478-2671		Jiiaiii	oi ous	touy i	1000	Jiu														Environment Testi	
Client Information	Sampler: CARL	AC.	RAPY	ON Lab	itmire,	Cheyer	nne	R						er Trac		No(s)			COC No. 400-121854-4	41788.1	
Circle Pearson	Phone 334	1-418	.5231	o E-M	ail eyenne.	.Whitm	ire@	Det.eu	ırofin	nsus.	com		State	of Ori	gin.		M	_	Page: Page 1 of 1		
Company International Paper Company			PWSID.		T				Ar	nalys	is F	Regi	ues	ted					Job #:		
Address	Due Date Request	ed:			£,							-							Preservation (		
601 County Road 78 City	TAT Requested (da	ays):	^		-														A - HCL B - NaOH	M - Hexane N - None	
Selma State, Zip:		KSA	P		1														C - Zn Acetate D - Nitric Acid	O - AsNaO2 P - Na2O4S Q - Na2SO3	
AL, 36703 Phone.	Compliance Project PO#:	t A Yes	Δ No									Sulfat						ien	E - NaHSO4 F - MaOH	R - Na2S2O3 S - H2SO4	
334-418-5236(Tel)	16969625				(0						-	40 P	tants					Residual	G - Amchlor H - Ascorbic Ack	T - TSD Dodocehudrato	
Email: Carla.Pearson@ipaper.com	WO#:				or No)		Beta					Fluoride & Sulfate	Pollu		1			Total	J - Ice J - Di Water	V - MCAA W - pH 4-5	
Carla.Pearson@ipaper.com Project Name: Form 2C Table C	Project # 40016047				(Yes		Gross	P				nide,	ential			_		Chlorine,	K-EDTA L-EDA	Y - Trizma Z - other (specify)	
P-PIVERDALE MILL (P'DALE)	SSOW#:				mple	a a Gr				88	9		Bro	Сопу	2		Fecal	uffite		Other:	,
ir-Averdine mo cr mus					d Sa	TAR	Alph	Nitro	365.4	Grea		28D	Non-	actan		отто	B.S	or B	D .		
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w-water, S=solid, O-wastafoli, BT=Tissue, A=Air	Field Filtered Sample (Yes	903.0, 903.0_TAR	900.0 - Gross Alpha	350.1, 361.2, Nitrogen,Org	353.2 Pres,	1664B - Oll & Grease	110.2 - Color	300_ORGFM_28D - Bromide,	200.8_CWA - Non-Convential Pollutants	5540C - Surfactants	376.2 - Suifide	9222D - Coliforms,	SM4500SO3_B - Suiffe	SM4500_Chlor_B	Special Special	I Instructions/Note:	
				mir Gode	XX	741			S	SM	100			-	-		N.	10	N D D D D D D D D D D D D D D D D D D D	- Langue	
DSH 002-003 PINALEPE	80823	8:45	C	Water	T										X						
					$\mathbf{I}$																
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					11																
					11						$\neg$	1									
				-	11	+					1										
					++-	+	-				1	-									
			-		+	+-			-	-	-	-	-		-						
	-	-	-		++-	+-			_	-	-	-	_	$\vdash$	_	-	_	-			
		-	-		+	-					-	-	_		_		_				
	-				++	1					-	_									
						ليل															
Possible Hazard Identification  Non-Hazard Flammable Skin Irritant Point	and B - June	-	Radiologica	J	S	ample R	Dis	posal	(A	fee n	nay I	be as	isses	sed i	if sa	mple	es ar		ained longer than	n 1 month) Months	
Deliverable Requested: I, II, III, IV, Other (specify)	SOIL OUR	ilowii	Naulologica			pecial I								Sai D	y La	<u> </u>			ICHIVE FOI	Wionars	
Empty Kit Relinquished by:		Date:			Time	:	-	_	_	_	_	_		Metho	od of	Shipm	ent	_			
Relinquished by:	Date 808	23	1:35	P-P	LAC	Recei	ved b	T At	M	w	X	0	-5	Tu.	en	Date/	Time	10	3239.2	5 COMPANIE	
Refinquished by:	Date/Time.		, ,,	Company	71.00	Recei	Vedt	5F	~~	A			_	7	<i>f</i>	Date	Hipse.	0	102 102	Company ALLA	
Relinquished 77	Date-Single:	7	100	Company	`	Recei	ived b	by:	/					-		Date/	Dine.	1/	X3 100	Company	
Jam Wom	Date 5 18/2	5 1	510	(6	LIN	X.	1	2	_	90	-	_				5	1	81	25 /5	14 CES	
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No						Coole	er Ten	nperati	ure(s)	"C and	Oth	er Ren	marks	,			1	,			

9/11/2023





### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-241664-1 SDG Number: Form 2C Table C

List Source: Eurofins Pensacola

Login Number: 241664

List Number: 1

Creator: Perez, Trina M

Creator: Perez, Irina M		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.8°C IR-10
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

9/11/2023

## **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

### aboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

### Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Pensacola

## **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241664-1 SDG: Form 2C Table C

### aboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-24
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
West Virginia DEP	State	381	10-31-23

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Pensacola

## PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703 Generated 9/18/2023 6:02:47 PM

## JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2C Table E

## **JOB NUMBER**

400-241662-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

Page 1 of 15



## **Eurofins Pensacola**

### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

### **Authorization**

Generated 9/18/2023 6:02:47 PM

Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

13

Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-241662-1 SDG: Form 2C Table E

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### Case Narrative

Client: International Paper Company "pject/Site: Riverdale Mill

Job ID: 400-241662-1 SDG: Form 2C Table E

Job ID: 400-241662-1

Laboratory: Eurofins Pensacola

**Narrative** 

Job Narrative 400-241662-1

Receipt

The sample was received on 8/8/2023 3:10 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C

#### Dioxin

Method 1613B Tetras: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD associated with the following samples run on instrument DFS 1 exceeded this criteria: DSN002-003 FINAL EFF (400-241662-1), (CCV 320-706174/2), (LCS 320-705098/2-A), (LCSD 320-705098/3-A) and (MB 320-705098/1-A). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## **Method Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241662-1

SDG: Form 2C Table E

Method	Method Description	Protocol	Laboratory
1613B	Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS	EPA	EET SAC
1613B	Separatory Funnel (L/L) Extraction with Soxhlet Extraction of Dioxin and Furans	EPA	EET SAC

#### **Protocol References:**

EPA = US Environmental Protection Agency

#### **Laboratory References:**

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

## **Sample Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241662-1

SDG: Form 2C Table E

Lab Sample ID Client Sample ID Matrix Collected Received 08/08/23 08:45 08/08/23 15:10 DSN002-003 FINAL EFF 400-241662-1 Water

## **Client Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

SDG: Form 2C Table E **Lab Sample ID: 400-241662-1** 

Job ID: 400-241662-1

Matrix: Water

Date Collected: 08/08/23 08:45

Date Received: 08/08/23 15:10

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<1.7		9.6	1.7	pg/L		09/11/23 09:11	09/15/23 06:40	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	57		31 - 137				09/11/23 09:11	09/15/23 06:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37CI4-2,3,7,8-TCDD	98	100000	42 - 164				09/11/23 09:11	09/15/23 06:40	1

C

74

Ш

13

### **Definitions/Glossary**

Client: International Paper Company

Percent Recovery

Contains Free Liquid

Colony Forming Unit

**Dilution Factor** 

Contains No Free Liquid

Detection Limit (DoD/DOE)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE)

Duplicate Error Ratio (normalized absolute difference)

Decision Level Concentration (Radiochemistry)

lossary **Abbreviation** 

%R

CFL

CFU

CNF

DER

DL

DLC

**EDL** LOD

Dil Fac

DL, RA, RE, IN

Job ID: 400-241662-Project/Site: Riverdale Mill

SDG: Form 2C Table E	
	5
	7

LOQ Limit of Quantitation (DoD/DOE) EPA recommended "Maximum Contaminant Level" MCL Minimum Detectable Activity (Radiochemistry) MDA Minimum Detectable Concentration (Radiochemistry) MDC

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

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

Method Detection Limit MDL Minimum Level (Dioxin) ML MPN Most Probable Number Method Quantitation Limit MOL Not Calculated NC

Not Detected at the reporting limit (or MDL or EDL if shown) ND

Negative / Absent NEG Positive / Present POS

PQL Practical Quantitation Limit

PRES Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

Relative Percent Difference, a measure of the relative difference between two points RPD

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count TNTC

### Lab Chronicle

Client: International Paper Company

lient Sample ID: DSN002-003 FINAL EFF

Project/Site: Riverdale Mill

Job ID: 400-241662-1 SDG: Form 2C Table E

Lab Sample ID: 400-241662-1

**Matrix: Water** 

Date Collected: 08/08/23 08:45 Date Received: 08/08/23 15:10

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	<b>Factor</b>	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1613B			1040.4 mL	20.0 uL	705098	09/11/23 09:11	FC	EET SAC
Total/NA	Analysis	1613B		1	1 Sample	1 Sample	706174	09/15/23 06:40	СВ	EET SAC

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

## **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241662-1 SDG: Form 2C Table E

### pecialty Organics

**Prep Batch: 705098** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241662-1	DSN002-003 FINAL EFF	Total/NA	Water	1613B	
MB 320-705098/1-A	Method Blank	Total/NA	Water	1613B	
LCS 320-705098/2-A	Lab Control Sample	Total/NA	Water	1613B	
LCSD 320-705098/3-A	Lab Control Sample Dup	Total/NA	Water	1613B	

Analysis Batch: 706174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-241662-1	DSN002-003 FINAL EFF	Total/NA	Water	1613B	705098
MB 320-705098/1-A	Method Blank	Total/NA	Water	1613B	705098
LCS 320-705098/2-A	Lab Control Sample	Total/NA	Water	1613B	705098
LCSD 320-705098/3-A	Lab Control Sample Dup	Total/NA	Water	1613B	705098

## **QC Sample Results**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-241662-1 SDG: Form 2C Table E

### ethod: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

Lab Sample ID: MB 320-705 Matrix: Water Analysis Batch: 706174	5098/1-A						Client Samp	ole ID: Method Prep Type: To Prep Batch:	otal/NA
		MB					-0.00		
Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<1.3		10	1.3	pg/L		09/11/23 09:11	09/15/23 00:15	1
	MB	MB							
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	78		31 - 137				09/11/23 09:11	09/15/23 00:15	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37CI4-2,3,7,8-TCDD	102	1	42 - 164				09/11/23 09:11	09/15/23 00:15	1

Lab Sample ID: LCS 320-7 Matrix: Water Analysis Batch: 706174	705098/2-A					Clie	nt Sai	mple ID	: Lab Control Sample Prep Type: Total/NA Prep Batch: 705098
			Spike	LCS	LCS				%Rec
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
2,3,7,8-TCDD			200	189		pg/L		94	73 - 146
	LCS	LCS							
Isotope Dilution	%Recovery	Qualifier	Limits						
13C-2,3,7,8-TCDD	78		25 - 141						
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
37CI4-2,3,7,8-TCDD	97		37 - 158						

Lab Sample ID: LCSD 320 Matrix: Water Analysis Batch: 706174	)-705098/3-A				C	Client Sa	mple	ID: Lab	Control S Prep Ty Prep Ba	pe: Tot	al/NA
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,3,7,8-TCDD			200	212		pg/L		106	73 - 146	11	50
	LCSD	LCSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
13C-2,3,7,8-TCDD	66		25 - 141								
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
37CI4-2,3,7,8-TCDD	97		37 - 158								

Phone: 850-474-1001 Fax: 850-478-2671

3355 McLemore Drive Pensacola, FL 32514

## **Chain of Custody Record**

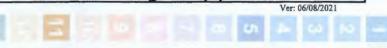


💸 eurofins

**Environment Testing** 

Client Information	Sampler CARL	A C. PA	APSON 5236	Lab Wh	PM ntmire,	Cheye	nne R	400-	-24166	coc	mer T	racking	No(s)			COC № 400-121855-417	89.1	
Client Contact: Carla Pearson	Phone 334	-418-	5236	E-M		. Whitn	nire@e	t.eurofi	insus.c	m	State of	Origin	AL			Page Page 1 of 1		
Company	1 00 1	110	PWSID.		1											Job#		
International Paper Company Address	Due Date Requeste	ed:			34			A	nalysi	s Rec	ueste	a		1	1500	Preservation Cod	es:	-
601 County Road 78					1											A - HCL	M - Hexane N - None	
City <sup>-</sup> Selma	TAT Requested (da	ays):			1											B - NaOH C - Zn Acetate	O - AsNaO2	
State, Zip					- 1										1-1	D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3	
AL, 36703 Phone:	Compliance Project	et: A Yes	A No		- 3											F - MeOH	R - Na2S2O3 S - H2SO4	
334-418-5236(Tel)	16969625				0)										6 4	G - Amchlor H - Ascorbic Acid	T - TSP Dodecahy U - Acetone	rdrate
Email Carla.Pearson@ipaper.com	WO #-				or No									1 3	401	I - Ica J - DI Water	V - MCAA W - pH 4-5	
Project Name	Project#				Yes											K - EDTA L - EDA	Y - Trizma	
Form 2C Table E	40016047 SSOW#:				ple (											Other:	Z - other (specify)	
Site. PLUERDALE MILL	SSOVVIII.				Sample (Yes	1613B - 2,3,7,8-TCDD									000			
			Sample	Matrix	peied	3,7,8												
			Туре	(W=water, S=solid,	EII¢	9.2												
Sample Identification	Sample Date	Sample Time	(C=comp, G=grab)	O=waste/oil, BT=Tissue, A=A	Field	16131				1					io.	Special In:	structions/Note	a:
Sample Identification				tion Code:	- A	<b>₹</b> N/				* #	被相		4	4	X	162-30-	THE RESERVE	A級機器整
DSN 002-003 PINAL EFF	80823	845	C	Water	П	X												
DOTTOOD OOS THIND DAT	- declar	0.0			11	1											1.00	
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					116	ample	Diene	col / A	foo m	w ho a	550550	d if on	moles	are ret	A Sino	d longer than 1	month)	
Possible Hazard Identification  Non-Hazard Flammable Skin Irritant Po	ison P		Padiological		13		otum 7	o Clien	t tee me		isposai	Ryla	h h	V	Archi	d longer than 1	Months	
Deliverable Requested: I, II, III, IV, Other (specify)	DISON B ONK	IOWII	Radiological		S			_	C Requ					HOH				
		Data	-		Time			_					Shipment		1111	, WI SPU DE		
Empty Kit Relinquished by. Relinquished by	Date/fim4	Date:		Company			ed hy		_	2 4					_		Company	
Reinquished by Children	Date/Time	23 9	1:45	IP-P	dale		(W	Atto	ly ?	iel	- Du	per	8	00	12:	3 9:00	Super	)
Relinquished by	Date/Time			Company		Rece	ived by	m	Jan 1	asa		2	Date/Tin	2/	2	1090	Company	0
Relinquished by Man	DaterTiple	77 1	7)	Company		Rece	ived						Datestin	10	H	2 15/1	Company	100
The men	18/8/	3 /	10			-	-						81	0/	0	5/5/0	0	5
Custody Seals Intact: Custody Seal No	/ /-					Cools	er Tempe	erature(s)	°C and	Other Re	marks		3/2	10	1-	ZK / C		

9/18/2023



### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-241662-1

SDG Number: Form 2C Table E

Login Number: 241662 List Source: Eurofins Pensacola

List Number: 1

Creator: Perez, Trina M

Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td> <td></td>	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.	True		
Cooler Temperature is acceptable.	True		
Cooler Temperature is recorded.	True	3.2°C IR-10	
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.	N/A		
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").	N/A		

True

True

N/A

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

### **Login Sample Receipt Checklist**

Client: International Paper Company

Appropriate sample containers are used.

There is sufficient vol. for all requested analyses, incl. any requested

Containers requiring zero headspace have no headspace or bubble is

Sample bottles are completely filled. Sample Preservation Verified.

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

MS/MSDs

<6mm (1/4").

Login Number: 241662

List Number: 2

Job Number: 400-241662-1

SDG Number: Form 2C Table E

**List Source: Eurofins Sacramento** 

List Creation: 08/11/23 08:15 AM

Answer	Comment
True	
True	2315746
N/A	
True	
True	
True	
True	5.3C
True	
True	
True	
False	Received project as a subcontract.
True	
	True True N/A True True True True True True True True

True True

N/A

True

True

True

True

N/A

## **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-241662-1

## SDG: Form 2C Table E

### aboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-24
Arkansas DEQ	State	88-0691	05-18-24
California	State	2897	01-22-24
Colorado	State	CA0004	08-31-24
Florida	NELAP	E87570	06-30-24
Georgia	State	4040	01-29-24
Hawaii	State	<cert no.=""></cert>	01-29-24
Illinois	NELAP	200060	03-17-24
Kansas	NELAP	E-10375	10-31-23
Louisiana (All)	NELAP	01944	06-30-24
Maine	State	CA00004	04-14-24
Michigan	State	9947	01-31-24
Nevada	State	CA00044	07-31-24
New Hampshire	NELAP	2997	04-18-24
New Jersey	NELAP	CA005	06-30-24
New York	NELAP	11666	04-01-24
Ohio	State	41252	01-29-24
Oregon	NELAP	4040	01-29-24
Texas	NELAP	T104704399-19-13	05-31-24
US Fish & Wildlife	US Federal Programs	58448	04-30-24
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442021-12	02-28-24
Virginia	NELAP	460278	03-14-24
Washington	State	C581	05-05-24
West Virginia (DW)	State	9930C	12-31-23
Wisconsin	State	998204680	08-31-23 *
Wyoming	State Program	8TMS-L	01-28-19 *

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

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## PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703

**ANALYTICAL REPORT** 

Generated 8/30/2023 4:13:41 PM

JOB DESCRIPTION

Form 2C Table B Sections 1-5 SDG NUMBER Riverdale Mill

**JOB NUMBER** 

400-242660-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

Page 1 of 15



## **Eurofins Pensacola**

### **Job Notes**

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### **Authorization**

Generated 8/30/2023 4:13:41 PM

Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

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Client: International Paper Company Project/Site: Form 2C Table B Sections 1-5 Laboratory Job ID: 400-242660-1

SDG: Riverdale Mill

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#### Case Narrative

Client: International Paper Company Project/Site: Form 2C Table B Sections 1-5 Job ID: 400-242660-1 SDG: Riverdale Mill

Jub ID: 400-242660-1

Laboratory: Eurofins Pensacola

Job Narrative 400-242660-1

Receipt

**Narrative** 

The samples were received on 8/29/2023 1:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.5° C.

Method 1631E: Routine preservation and digestion of samples analyzed by EPA 1631E consists of the addition of 0.4mL bromin monochloride (BrCl) solution. Additional BrCl was required to ensure complete sample oxidation for the following sample: DSN002-003 FINAL EFF (400-242660-1). An additional method digestion blank, with like amounts of BrCl, was prepared and analyzed with the sample. The mercury concentration in this additional method blank is less than the reporting limit.

Method 1631E: The following sample was diluted due to the nature of the sample matrix: DSN002-003 FINAL EFF (400-242660 Elevated reporting limits (RLs) are provided. The sample appears to be dark, dirty and cloudy.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## **Detection Summary**

Client: International Paper Company Project/Site: Form 2C Table B Sections 1-5 Job ID: 400-242660-1 SDG: Riverdale Mill

lient Sample ID: DSN002-003 FINAL EFF

Lab Sample ID: 400-242660-1

Analyte RL **MDL** Unit Dil Fac D Method **Prep Type** Result Qualifier 0.0000075 1631E Total/NA Mercury 0.0000025 0.0000010 mg/L

Client Sample ID: DSN002-003 FINAL EFF-FIELD BLANK

Lab Sample ID: 400-242660-2

# **Method Summary**

Client: International Paper Company
Project/Site: Form 2C Table B Sections 1-5

Method

1631E 1631E

**Protocol References:** 

Laboratory References:

**Method Description** 

EPA = US Environmental Protection Agency

Mercury, Low Level (CVAFS)

Preparation, Mercury, Low Level

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

Job ID: 400-242660-1 SDG: Riverdale Mill

Laboratory

EET PEN

EET PEN

Protocol

EPA

**EPA** 

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# **Sample Summary**

Client: International Paper Company
Project/Site: Form 2C Table B Sections 1-5

Job ID: 400-242660-1

SDG: Riverdale Mill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242660-1	DSN002-003 FINAL EFF	Water	08/28/23 17:15	08/29/23 13:45
400-242660-2	DSN002-003 FINAL EFF-FIELD BLANK	Water	08/28/23 17:15	08/29/23 13:45

### **Client Sample Results**

Client: International Paper Company Project/Site: Form 2C Table B Sections 1-5 Job ID: 400-242660-1

SDG: Riverdale Mill

lient Sample ID: DSN002-003 FINAL EFF

Lab Sample ID: 400-242660-1

**Matrix: Water** 

Date Collected: 08/28/23 17:15 Date Received: 08/29/23 13:45

Analyte

Mercury

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

0.0000075

Result Qualifier

RL **MDL** Unit Prepared Analyzed Dil Fac 0.0000025 0.0000010 mg/L 08/29/23 15:55 08/30/23 11:13

Client Sample ID: DSN002-003 FINAL EFF-FIELD BLANK

Lab Sample ID: 400-242660-2

Date Collected: 08/28/23 17:15 Date Received: 08/29/23 13:45

n

**Matrix: Water** 

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

Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 0.0000005 0.0000002 mg/L Mercury <0.00000020 08/29/23 15:55 08/30/23 11:05

# **Definitions/Glossary**

Client: International Paper Company
Project/Site: Form 2C Table B Sections 1-5

Presumptive

**Quality Control** 

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Job ID: 400-242660-1 SDG: Riverdale Mill

2

#### ossary

**PRES** 

QC

RER RL

RPD TEF

TEQ

TNTC

Abbreviation	These commonly used abbreviations may or may not be present in this report.
a	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit

Eurofins Pensacola

#### Lab Chronicle

Client: International Paper Company Project/Site: Form 2C Table B Sections 1-5 Job ID: 400-242660-1

SDG: Riverdale Mill

#### lient Sample ID: DSN002-003 FINAL EFF

Date Collected: 08/28/23 17:15 Date Received: 08/29/23 13:45

Lab Sample ID: 400-242660-1

**Matrix: Water** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			8 mL	40 mL	639047	08/29/23 15:55	VLC	EET PEN
							Completed:	08/30/23 08:30	1	
Total/NA	Analysis	1631E		1			639148	08/30/23 11:13	VLC	EET PEN

Lab Sample ID: 400-242660-2

Client Sample ID: DSN002-003 FINAL EFF-FIELD BLANK Date Collected: 08/28/23 17:15 **Matrix: Water** 

Date Received: 08/29/23 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			40 mL	40 mL	639047	08/29/23 15:55	VLC	EET PEN
							Completed:	08/30/23 08:30	1	
Total/NA	Analysis	1631E		1			639148	08/30/23 11:05	VLC	EET PEN

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed

#### Laboratory References:

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

# **QC Association Summary**

Client: International Paper Company

Project/Site: Form 2C Table B Sections 1-5

Job ID: 400-242660-1

SDG: Riverdale Mill

#### etals

### Prep Batch: 639047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242660-1	DSN002-003 FINAL EFF	Total/NA	Water	1631E	
400-242660-2	DSN002-003 FINAL EFF-FIELD BLANK	Total/NA	Water	1631E	
MB 400-639047/3-A	Method Blank	Total/NA	Water	1631E	
LCS 400-639047/4-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 400-639047/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	

### Analysis Batch: 639148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242660-1	DSN002-003 FINAL EFF	Total/NA	Water	1631E	639047
400-242660-2	DSN002-003 FINAL EFF-FIELD BLANK	Total/NA	Water	1631E	639047
MB 400-639047/3-A	Method Blank	Total/NA	Water	1631E	639047
LCS 400-639047/4-A	Lab Control Sample	Total/NA	Water	1631E	639047
LCSD 400-639047/5-A	Lab Control Sample Dup	Total/NA	Water	1631E	639047

### **QC Sample Results**

Client: International Paper Company
Project/Site: Form 2C Table B Sections 1-5

Job ID: 400-242660-1 SDG: Riverdale Mill

verdale Mill

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

Lab Sample ID: MB 400-639047/3-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Matrix: Water
Analysis Batch: 639148

MB MB

Prep Type: Total/NA
Prep Batch: 639047

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Mercury
 <0.00000020</td>
 0.0000002
 mg/L
 08/29/23 16:20
 08/30/23 09:26
 1

Lab Sample ID: LCS 400-639047/4-A Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA Analysis Batch: 639148 Prep Batch: 639047 Spike LCS LCS %Rec Added Result Qualifier D %Rec Limits Analyte Unit 79 - 121 Mercury 0.0000050 0.00000488 mg/L 98 0

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 400-639047/5-A Matrix: Water Prep Type: Total/NA Analysis Batch: 639148 Prep Batch: 639047 Spike LCSD LCSD %Rec RPD Limits RPD Limit Analyte Added Result Qualifier Unit %Rec 79-121 15 0.0000050 0.00000566 mg/L 113 Mercury 0

# **Chain of Custody Record**



eurofins

Environment Testing

Priorie 630-4/4-1001 Pax. 630-4/6-20/1	Sampler	( )	FASC	Lab I	PM itmire, (	Chavan		400-242660 COCng	No(s)		COC No 400-122391-419	E1 1
Client Information Client Contact:	Phone 334	A100	523	E-Ma	ail			State of Origin	AL		Page	51.1
Carla Pearson	207	-110-	PWSID	O Che	eyenne	Whitmi	re@et eurofinsus	com	TIL		Page 1 of 1 Job #:	
Company International Paper Company			FWSID				Analy	sis Requested			300 W.	
Address 601 County Road 78	Due Date Request	ed:									Preservation Cod A - HCL	M - Hexane
City <sup>-</sup> Selma	TAT Requested (d	ASAT									B - NaOH C - Zn Acetate	N - Norre O - AsNaO2 P - Na2O4S
State, Zip AL., 36703	Compliance Proje										D - Nitric Acid E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2O3
Phone 334-418-5236(Tel)	PO #· 16969625				6	6				1	G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate U - Acetone
Email Carla.Pearson@ipaper com	WO #				S or N	Level (CVAFS)				12	I - Ice J - DI Water K - EDTA	V - MCAA W - pH 4-5
Project Name Form 2C Table B Sections 1-5	Project #* 40016047				le (Ye	Level				de la contra	L-EDA	Y - Trizma Z - other (specify)
SITE RIVERDALE MILL	SSOW#				Samp	y, Low				90	Other:	
		Sample	Sample Type (C=comp,	Matrix (W=outer, S=solid, O=outestatoli,	leld Filtered	1E - Mercur				Number		
Sample Identification	Sample Date	Time	G=grab)	BT=Tissue, A=Air	) E	1631E				Total	Special In	structions/Note:
DSHOOZ-003 FINAL EFF	8/28/23	17:15	G	water	HY.	N			3	憲义		100
DOTION OUS FINANCE IT	11	17:15	G	Water	1					130	BLANI	16
		1110	4		H	1					Davin	
					$\Box$					4		
					Ш							
					Ш					1		
					₩							
Possible Hazard Identification	l				Sa	mple [	Disposal ( A fee r	nay be assessed if sa	amples an	e retaine	d longer than 1	month)
Non-Hazard Flammable Skin Irritant Poi.	son B Unki	nown -	Radiologica	al		Rei	turn To Client	Disposal By La	ab [	Arch	ive For	Months
Deliverable Requested I, II, III, IV, Other (specify)					Sp	ecial In	structions/QC Re	equirements AFT	ERI	MON	MH, DISP	OSE
Empty Kit Relinquished by		Date:		I a	Time:	10			Shipment			
Relinquished by	Date/Time 29	13 9:	00 AM	IP-RIVER	DALE	Receiv	Waterly S	caffor Sayon	Uate/Jime	29 23	9:00	Sayor Cabo
Relinquished by	Date/Time			Company		Kecely	BPU	,0 0	8/2	9/29	7 1345	Company
Relinquished by	Date/Time			Сотрапу		Receive			Date/Time			Company
Custody Seals Intact Custody Seal No 233	0445					Cooler	Temperature(s) °C an	Other Semarks				

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# **Login Sample Receipt Checklist**

Client: International Paper Company

Job

Job Number: 400-242660-1 SDG Number: Riverdale Mill

List Source: Eurofins Pensacola

List Number: 1

Creator: Earnest, Tamantha

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5°C IR 10
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.	N/A	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

N/A

















Residual Chlorine Checked.

# **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Form 2C Table B Sections 1-5

Job ID: 400-242660-1 SDG: Riverdale Mill

# verdale Mill

#### aboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-31-23
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas .	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24











# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703 Generated 9/11/2023 5:08:03 PM

# JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table A

# **JOB NUMBER**

400-242686-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

Page 1 of 18



# **Eurofins Pensacola**

### **Job Notes**

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#### **Authorization**

Generated 9/11/2023 5:08:03 PM

Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

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C Sample Results	13
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ertification Summary	18

#### Case Narrative

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242686-1 SDG: Form 2F Table A

Job ID: 400-242686-1

Laboratory: Eurofins Pensacola

Narrative Job Narrative

400-242686-1

Receipt The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and wh

required, properly preserved and on ice. The temperature of the cooler at receipt was 0.3° C.

**General Chemistry** 

Method 405.1: The USB dilution water D.O. depletion was greater than 0.2 mg/L. The associated sample results in batch 400-639272 are qualified and reported. USB reported at 0.38 mg/L.

**Organic Prep** 

Method 1664B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 400-640054 and analytical batch 400-640088.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# **Detection Summary**

Client: International Paper Company

lent Sample ID: DSN004 STORM POND

Project/Site: Riverdale Mill

Job ID: 400-242686-1 SDG: Form 2F Table A

# Lab Sample ID: 400-242686-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type
pH	7.9	HF			S.U.	1	150.1	Total/NA
Temperature	23.7	HF			Degrees C	1	150.1	Total/NA
Total Suspended Solids	10		5.0	5.0	mg/L	1	160.2	Total/NA
Nitrogen, Kjeldahl	1.7		0.50	0.26	mg/L	1	351.2	Total/NA
Phosphorus, Total	0.10		0.10	0.049	mg/L	1	365.4	Total/NA
Biochemical Oxygen Demand	9.7	b	2.0	2.0	mg/L	1	405.1	Total/NA
Chemical Oxygen Demand (COD)	55		10	6.4	mg/L	1	410.4	Total/NA
Nitrogen, Total	1.7		0.50	0.26	mg/L	1	Total Nitrogen	Total/NA

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# **Method Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242686-1 SDG: Form 2F Table A

m 2F Table A	

Method	Method Description	Protocol	Laboratory
50.1	pH (Electrometric)	EPA	EET PEN
60.2	Solids, Total Suspended (TSS)	EPA	EET PEN
664B	HEM and SGT-HEM	1664B	EET PEN
51.2	Nitrogen, Total Kjeldahl	EPA	EET PEN
53.2	Nitrogen, Nitrate-Nitrite	EPA	EET PEN
65.4	Phosphorus, Total	EPA	EET PEN
05.1	BOD, 5-Day	EPA	EET PEN
10.4	COD	EPA	EET PEN
otal Nitrogen	Nitrogen, Total	EPA	EET PEN
664B	HEM and SGT-HEM (Aqueous)	1664B	EET PEN
51.2	Nitrogen, Total Kjeldahl	EPA	EET PEN
65.2/365.3/365	Phosphorus, Total	EPA	EET PEN

#### **Protocol References:**

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

#### Laboratory References:

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

# Sample Summary

Client: International Paper Company

Job ID: 400-242686-1 SDG: Form 2F Table A

 Lab Sample ID
 Client Sample ID
 Matrix
 Collected
 Received

 400-242686-1
 DSN004 STORM POND
 Water
 08/29/23 14:40
 08/30/23 11:55

3

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D

13

# **Client Sample Results**

Client: International Paper Company

Coject/Site: Riverdale Mill

Job ID: 400-242686-1 SDG: Form 2F Table A

lient Sample ID: DSN004 STORM POND

Date Collected: 08/29/23 14:40 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242686-1

**Matrix: Water** 

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (EPA 150.1)	7.9	HF			S.U.			08/31/23 14:00	1
Temperature (EPA 150.1)	23.7	HF			Degrees C			08/31/23 14:00	1
Total Suspended Solids (EPA 160.2)	10		5.0	5.0	mg/L			09/04/23 19:21	1
HEM (Oil and Grease) (1664B)	<1.8		5.0	1.8	mg/L		09/07/23 09:32	09/07/23 11:43	1
Nitrogen, Kjeldahl (EPA 351.2)	1.7		0.50	0.26	mg/L		09/06/23 17:22	09/07/23 11:38	1
Nitrate Nitrite as N (EPA 353.2)	< 0.018		0.050	0.018	mg/L			09/07/23 17:39	1
Phosphorus, Total (EPA 365.4)	0.10		0.10	0.049	mg/L		09/05/23 17:10	09/06/23 11:33	1
Biochemical Oxygen Demand (EPA 405.1)	9.7	b	2.0	2.0	mg/L			08/30/23 15:46	1
Chemical Oxygen Demand (COD) (EPA 410.4)	55		10	6.4	mg/L			09/08/23 10:29	1
Nitrogen, Total (EPA Total Nitrogen)	1.7		0.50	0.26	mg/L			09/01/23 12:25	1

# **Definitions/Glossary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242686-1 SDG: Form 2F Table A

# ualifiers

QC

RER

RL **RPD** 

TEF

TEQ

TNTC

**Quality Control** 

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin)

Too Numerous To Count

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

General Che	General Chemistry							
Qualifier	Qualifier Description							
b	Result Detected in the Unseeded Control blank (USB).							
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.							
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.							

Glossary		Δ
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
D	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	

# **Lab Chronicle**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242686-1

SDG: Form 2F Table A

ient Sample ID: DSN004 STORM POND

Date Collected: 08/29/23 14:40 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242686-1

**Matrix: Water** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run Fa	ctor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	150.1		1			639368	08/31/23 14:00	SF	EET PEN
Total/NA	Analysis	160.2		1	100 mL	100 mL	639658	09/04/23 19:21	HA	EET PEN
Total/NA	Prep	1664B			798 mL	1000 mL	640054	09/07/23 09:32	AR	EET PEN
Total/NA	Analysis	1664B		1			640088	09/07/23 11:43	AR	EET PEN
Total/NA	Prep	351.2			25 mL	25 mL	640001	09/06/23 17:22	VB	EET PEN
Total/NA	Analysis	351.2		1			640133	09/07/23 11:38	VB	EET PEN
Total/NA	Analysis	353.2		1	5 mL	5 mL	640174	09/07/23 17:39	DEK	EET PEN
Total/NA	Prep	365.2/365.3/365			25 mL	25 mL	639818	09/05/23 17:10	VB	EET PEN
Total/NA	Analysis	365.4		1	10 mL	10 mL	639943	09/06/23 11:33	VB	EETPEN
Total/NA	Analysis	405.1		1	300 mL	300 mL	639272	08/30/23 15:46	AT	EET PEN
							Completed:	09/04/23 08:24	1	
Total/NA	Analysis	410.4		1	2 mL	2 mL	640225	09/08/23 10:29	CJK	EET PEN
Total/NA	Analysis	Total Nitrogen		1			639484	09/01/23 12:25	DEK	EET PEN

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

#### **Laboratory References:**

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



# **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242686-1 SDG: Form 2F Table A

### leneral Chemistry

<b>Analysis</b>	Batch:	639272
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Lab Sample ID 400-242686-1	Client Sample ID DSN004 STORM POND	Prep Type Total/NA	Matrix Water	Method 405.1	Prep Batch
USB 400-639272/1	Method Blank	Total/NA	Water	405.1	
LCS 400-639272/2	Lab Control Sample	Total/NA	Water	405.1	

#### Analysis Batch: 639368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242686-1	DSN004 STORM POND	Total/NA	Water	150.1	
LCS 400-639368/4	Lab Control Sample	Total/NA	Water	150.1	

#### Analysis Batch: 639484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242686-1	DSN004 STORM POND	Total/NA	Water	Total Nitrogen	

#### Analysis Batch: 639658

Lab Sample ID 400-242686-1	Client Sample ID DSN004 STORM POND	Prep Type Total/NA	Matrix Water	Method 160.2	Prep Batch
MB 400-639658/1	Method Blank	Total/NA	Water	160.2	
LCS 400-639658/2	Lab Control Sample	Total/NA	Water	160.2	

### Prep Batch: 639818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242686-1	DSN004 STORM POND	Total/NA	Water	365.2/365.3/365	
MB 400-639818/1-A	Method Blank	Total/NA	Water	365.2/365.3/365	
LCS 400-639818/2-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	

#### Analysis Batch: 639943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242686-1	DSN004 STORM POND	Total/NA	Water	365.4	639818
MB 400-639818/1-A	Method Blank	Total/NA	Water	365.4	639818
LCS 400-639818/2-A	Lab Control Sample	Total/NA	Water	365.4	639818
MRL 400-639943/10	Lab Control Sample	Total/NA	Water	365.4	

#### Prep Batch: 640001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242686-1	DSN004 STORM POND	Total/NA	Water	351.2	
MB 400-640001/1-A	Method Blank	Total/NA	Water	351.2	
LCS 400-640001/2-A	Lab Control Sample	Total/NA	Water	351.2	

#### Prep Batch: 640054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242686-1	DSN004 STORM POND	Total/NA	Water	1664B	
MB 400-640054/1-A	Method Blank	Total/NA	Water	1664B	
LCS 400-640054/2-A	Lab Control Sample	Total/NA	Water	1664B	
LCSD 400-640054/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	

#### Analysis Batch: 640088

			** * * * * * * * * * * * * * * * * * * *	**-**	Down Datel
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242686-1	DSN004 STORM POND	Total/NA	Water	1664B	640054
MB 400-640054/1-A	Method Blank	Total/NA	Water	1664B	640054
LCS 400-640054/2-A	Lab Control Sample	Total/NA	Water	1664B	640054
1 CSD 400-640054/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	640054

Eurofins Pensacola

9/11/2023

# **QC Association Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242686-1 SDG: Form 2F Table A

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### eneral Chemistry

#### Analysis Batch: 640133

Lab Sample ID 400-242686-1	Client Sample ID DSN004 STORM POND	Prep Type Total/NA	Matrix Water	Method 351.2	Prep Batch 640001
MB 400-640001/1-A	Method Blank	Total/NA	Water	351.2	640001
LCS 400-640001/2-A	Lab Control Sample	Total/NA	Water	351.2	640001

#### Analysis Batch: 640174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242686-1	DSN004 STORM POND	Total/NA	Water	353.2	
MB 400-640174/16	Method Blank	Total/NA	Water	353.2	
LCS 400-640174/17	Lab Control Sample	Total/NA	Water	353.2	
MRL 400-640174/18	Lab Control Sample	Total/NA	Water	353.2	

#### Analysis Batch: 640225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242686-1	DSN004 STORM POND	Total/NA	Water	410.4	1000
MB 400-640225/5	Method Blank	Total/NA	Water	410.4	
LCS 400-640225/6	Lab Control Sample	Total/NA	Water	410.4	
MRL 400-640225/7	Lab Control Sample	Total/NA	Water	410.4	

E

ethod: 150.1 - pH (Electrometric)

Lab Sample ID: LCS 400-639368/4 Matrix: Water

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 639368

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits рН 7.00 7.0 S.U. 98.6 - 101. 100

Method: 160.2 - Solids, Total Suspended (TSS)

Lab Sample ID: MB 400-639658/1

Client Sample ID: Method Blank

Matrix: Water

Analyte

Analyte

Analysis Batch: 639658

Prep Type: Total/NA

MB MB Result Qualifier

< 0.50

Prepared Analyzed **Dil Fac** 09/04/23 19:21

Lab Sample ID: LCS 400-639658/2

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

**Matrix: Water** 

**Total Suspended Solids** 

Total Suspended Solids

Analysis Batch: 639658

Spike LCS LCS %Rec Added Result Qualifier Unit %Rec

mg/L

MDL Unit

0.50 mg/L

Limits 100 79 - 124

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 400-640054/1-A

**Matrix: Water** 

Lab Sample ID: LCS 400-640054/2-A

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 640054

Analysis Batch: 640088

MB MB

Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 09/07/23 09:32 09/07/23 11:43 HEM (Oil and Grease) <1.4 4.0 1.4 mg/L

RL

0.50

297

Client Sample ID: Lab Control Sample

**Matrix: Water** 

Analysis Batch: 640088

Analysis Batch: 640088

Prep Type: Total/NA

Prep Batch: 640054

LCS LCS %Rec Spike Analyte Added Result Qualifier Unit %Rec Limits HEM (Oil and Grease) 39.9 31.00 mg/L 78

78 - 114

Lab Sample ID: LCSD 400-640054/3-A

**Matrix: Water** 

297

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

> Prep Batch: 640054 %Rec RPD

LCSD LCSD Spike Limits RPD Limit Analyte Added Result Qualifier Unit D %Rec 31.70 78 - 114 18 HEM (Oil and Grease) 39.9 mg/L

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 400-640001/1-A

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 640001

Matrix: Water Analysis Batch: 640133

Nitrogen, Kjeldahl

MB MB

Result Qualifier

< 0.26

**MDL** Unit 0.26 mg/L

Prepared 09/06/23 17:22 09/07/23 11:12

Analyzed

Eurofins Pensacola

RL

0.50

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

### lethod: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 400-640001/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Analysis Batch: 640133 Prep Batch: 640001 Spike LCS LCS %Rec Analyte Added Result Qualifier %Rec Limits Unit D Nitrogen, Kjeldahl 10.0 10.7 90 - 110 mg/L 107

#### Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 400-640174/16

**Matrix: Water** 

 Analysis Batch: 640174

 MB MB

 Analyte
 Result Qualifier
 RL MDL Unit D Prepared
 D Prepared Analyzed Dil Factorita (Nitrate Nitrite as N Section 2007)
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 D MDL Unit D Prepared (Nitrate Nitrite as N Section 2007)

Lab Sample ID: LCS 400-640174/17

Matrix: Water

Analysis Batch: 640174

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

 Spike
 LCS
 LCS
 %Rec

 Analyte
 Added
 Result
 Qualifier
 Unit
 D
 %Rec
 Limits

 Nitrate Nitrite as N
 1.00
 0.997
 mg/L
 100
 90 - 110

**Matrix: Water** Prep Type: Total/NA Analysis Batch: 640174 Spike MRL MRL %Rec Result Qualifier %Rec Analyte Added Unit Limits 0.0500 0.0410 J 82 50 - 150 Nitrate Nitrite as N mg/L

#### Method: 365.4 - Phosphorus, Total

Lab Sample ID: MRL 400-640174/18

Lab Sample ID: MB 400-639818/1-A

Matrix: Water

Analysis Batch: 639943

MB MB

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639818

 Analyte
 Result Qualifier
 RL NDL Unit
 D Prepared
 Analyzed Dil Fac

 Phosphorus, Total
 <0.049</td>
 0.10
 0.049 mg/L
 09/05/23 17:06
 09/06/23 11:12
 1

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 400-639818/2-A Prep Type: Total/NA **Matrix: Water Prep Batch: 639818** Analysis Batch: 639943 LCS LCS %Rec Spike Result Qualifier %Rec Limits Analyte Added Unit 75 - 113 104

Phosphorus, Total 1.98 2.05 mg/L 104 75 - 113

Lab Sample ID: MRL 400-639943/10 Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA

Analysis Batch: 639943 %Rec Spike MRL MRL %Rec Limits Added Result Qualifier D Unit Analyte 50 50 - 150 0.0400 < 0.023 mg/L Phosphorus, Total

### **QC Sample Results**

Client: International Paper Company Job ID: 400-242686-1 Project/Site: Riverdale Mill SDG: Form 2F Table A lethod: 405.1 - BOD, 5-Day Lab Sample ID: USB 400-639272/1 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA Analysis Batch: 639272 USB USB **MDL** Unit Analyte Result Qualifier RL Prepared Analyzed Dil Fac Biochemical Oxygen Demand <2.0 2.0 2.0 mg/L 08/30/23 13:51 Lab Sample ID: LCS 400-639272/2 Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA Analysis Batch: 639272 Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Biochemical Oxygen Demand 198 173 mg/L 88 85 - 115 Method: 410.4 - COD Lab Sample ID: MB 400-640225/5 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA Analysis Batch: 640225 MB MB Result Qualifier RL MDL Unit Prepared Dil Fac Analyzed Chemical Oxygen Demand (COD) <6.4 10 6.4 mg/L 09/08/23 10:29 Lab Sample ID: LCS 400-640225/6 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Analysis Batch: 640225 Spike LCS LCS %Rec

Added

50.0

Spike

Analyte

Analyte

**Matrix: Water** 

Chemical Oxygen Demand (COD)

Analysis Batch: 640225

Chemical Oxygen Demand (COD)

Lab Sample ID: MRL 400-640225/7

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Limits

90 - 110

%Rec

%Rec

107

 Added
 Result
 Qualifier
 Unit
 D
 %Rec
 Limits

 10.0
 13.0
 mg/L
 130
 50 - 150

MRL MRL

53.6

Result Qualifier

Unit

mg/L

#### E rofins Pensacola

33.55 McLemore Drive Pensacola, FL 32514

# **Chain of Custody Record**



💸 eurofins

Environment Testing

Phone: 850-474-1001 Fax: 850-478-2671													
Client Information	Sampler A21	A C.P	5-9234	Lab P	mire, Che	yenne	R		400-	242686 CC	cking	No(s)	COC No. 400-122358-41790.1
lient Contact	Phone 331	4-419	5-6021	E-Mail	: /enne.Whi	tmire/	ant a	rofir	neue o	om t	igin:	AL	Page: Page 1 of 1
ompany.	1 33	1.110	PWSID:	Cite	etale.vviii	unne	wer.er	urom	1505.0	3111		/ 10	Job#:
nent contact: aria Pearson ompany: aternational Paper Company ddress.								An	alysi	s Reque	sted		
ddress. 01 County Road 78	Due Date Requeste	ed:											Preservation Codes:
ity:	TAT Requested (da	ays):	-1										A - HCL N - None
ity: elma		ASC	P'				1 1	1					C - Zn Acetate D Ne2048
tate, Zip: .L., 36703	Compliance Project	ct: A Yes	A No					J					D - Nitric Acid Q - Nit 2SO3
hone.	PO#:		- 110				1 1	İ				P.	F - MeOH R - Na2S2O3 S - H2SO4
34-418-5236(Tel)	16969625				0	1	1	1		1 1			H - Ascorbic Acid
mail: arta.Pearson@ipaper.com	WO #:				SKEDSTAND	3		1					I - ICB V - MCAA
oject Name:	Project #:				8	n,T				1 1			K-EDTA Y-Trizma
orm 2F Table A	40016047				USA.	e e	1						Z - other (specify)
RIVERDALE MILL	SSOW#.				Sem	351.2, 353.2 Pres, Nitrogen, Total	1664B - Oil & Grease	Day					Other:
			Sample	Matrix	B	2 P	9	405.1 - BOD, 6-Day					and the state of t
			Туре	(W=water, S=solid,		383	ō	8	TS	5			
1-11-400-40-	Sample Date	Sample Time	(C=comp,	Onwaste/oil,	EDICE ENTE:	51.2,	6648	1.50	160.2 - TSS				Special Instructions/Note:
ample Identification	Sample Date	Time	G=grab) B	Tissue, A=Air)	XXX 3	60	7	7	7100				Special instructions/Note:
DSN 004 STORM POND	82923	2:40	9	Water				7	PARENTAL PAR				
POLICE LOCAL LOLLA	10/2/20	- 10		Water	1	1,	V	-	-	++		1	
	1	-	19	AAGTEI		+	M	V	-		-	1	
11			G	11				X					¥
11			6	11				1	X			12	·
			7	11		+				V			
11	1	1	9	- 1		+	-	-	-	1			26
		1											
												1	
						+				1			
	-	-	-			+				+-	-		
													6
												1	
Possible Hazard Identification					Same	In Die	2000	1/1	foo m	av he acce	cood if co	mples are reta	ned longer than 1 month)
Non-Hazard Flammable Skin Irritant			Destintantes!		Samp	O-A	n To (	CER	ree m	Oise	osal By La	imples are real	chive For Months
Deliverable Requested: I, II, III, IV, Other (specify)	DISON B UNK	nown	Radiological							uirements:	Osar by La	A	
								-			14	ter mon	th dispose
Empty Kit Relinquished by:		Date:			Time:						Method of		
Relinquished by State Control of the	Pate/Times 30	227:	45	P-RIVE	DINITE	Carved	AT	A	C	00 h	Jun	Date/Time 30	33 7:45 COMPANY
Relinquished by:	Date/Time	-5		ompany		ceived		my	197	N	Carry.		
<i>X</i>								-	V-	12		8.30%	13 11:55 Company 0
Relinquished by	Date/Time,		C	ompany	Re	ceived	py.					Date/Time	Company
Custody Seals Intact: Custody Seal No.:	20113	70			0	oler Te	mperat	ure/e)	°C and	Other Remark	ke. •	-	
Custody Seals Intact: Custody Seal No.: Δ Yes Δ No	23663	ナク					- point	(a)	, ound		C	.3 IR8	

# **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242686-1 SDG Number: Form 2F Table A

List Source: Eurofins Pensacola

Login Number: 242686 List Number: 1

Creator: Roberts, Alexis J

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>- 2 - 7</td>	N/A	- 2 - 7
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.3°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s 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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# **Accreditation/Certification Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242686-1

# SDG: Form 2F Table A

### aboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>	
Alabama	State	40150	06-30-24	
ANAB	ISO/IEC 17025	L2471	02-22-26	
Arkansas DEQ	State	88-00689	08-01-24	
California	State	2510	06-30-24	
Florida	NELAP	E81010	06-30-24	
Georgia	State	E81010(FL)	06-30-24	
Illinois	NELAP	200041	10-09-23	
Kansas	NELAP	E-10253	10-31-23	
Kentucky (UST)	State	53	06-30-24	
Louisiana (All)	NELAP	30976	06-30-24	
Louisiana (DW)	State	LA017	12-31-23	
Maryland	State	233	09-30-23	
North Carolina (WW/SW)	State	314	12-31-23	
Oklahoma	NELAP	9810	12-31-23	
Pennsylvania	NELAP	68-00467	01-31-24	
South Carolina	State	96026	06-30-24	
Tennessee	State	TN02907	06-30-24	
Texas	NELAP	T104704286	09-30-23	
US Fish & Wildlife	US Federal Programs	A22340	06-30-24	
USDA	US Federal Programs	P330-21-00056	05-17-24	
USDA	US Federal Programs	FLGNV23001	01-08-26	
Virginia	NELAP	460166	06-14-24	
West Virginia DEP	State	136	03-31-24	

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# PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703 Generated 9/11/2023 4:51:02 PM

**ANALYTICAL REPORT** 

# JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table A

# JOB NUMBER

400-242700-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

Page 1 of 18



# **Eurofins Pensacola**

#### **Job Notes**

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

#### **Authorization**

Generated 9/11/2023 4:51:02 PM

Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

Laboratory Job ID: 400-242700-1 SDG: Form 2F Table A

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#### **Case Narrative**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242700-1 SDG: Form 2F Table A

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Jub ID: 400-242700-1

**Laboratory: Eurofins Pensacola** 

**Narrative** 

Job Narrative 400-242700-1 5

Receipt

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and wh required, properly preserved and on ice. The temperature of the cooler at receipt was 5.5° C.

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**General Chemistry** 

Method 351.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-639817 and analytical batch 400-640062 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 405.1: The USB dilution water D.O. depletion was greater than 0.2 mg/L. The associated sample results in batch 400-639272 are qualified and reported. USB reported at 0.38 mg/L.

**Organic Prep** 

Method 1664B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 400-640054 and analytical batch 400-640088.

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No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# **Detection Summary**

Client: International Paper Company

Job ID: 400-242700-1 roject/Site: Riverdale Mill SDG: Form 2F Table A

### ient Sample ID: DSN005 STORM POND

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
pH	7.4	HF			S.U.	1	_	150.1	Total/NA
Temperature	24.0	HF			Degrees C	1		150.1	Total/NA
Total Suspended Solids	19		5.0	5.0	mg/L	1		160.2	Total/NA
Nitrogen, Kjeldahl	0.96		0.50	0.26	mg/L	1		351.2	Total/NA
Nitrate Nitrite as N	0.47		0.050	0.018	mg/L	1		353.2	Total/NA
Phosphorus, Total	0.14		0.10	0.049	mg/L	1		365.4	Total/NA
Biochemical Oxygen Demand	3.4	b	2.0	2.0	mg/L	1		405.1	Total/NA
Chemical Oxygen Demand (COD)	25		10	6.4	mg/L	. 1		410.4	Total/NA
Nitrogen, Total	1.4		0.50	0.26	mg/L	1		Total Nitrogen	Total/NA

Lab Sample ID: 400-242700-1

# **Method Summary**

Client: International Paper Company

**Method Description** 

**HEM and SGT-HEM** 

BOD, 5-Day

Nitrogen, Total

COD

Nitrogen, Total Kjeldahl

Nitrogen, Nitrate-Nitrite Phosphorus, Total

Nitrogen, Total Kjeldahl

Phosphorus, Total

Solids, Total Suspended (TSS)

HEM and SGT-HEM (Aqueous)

pH (Electrometric)

Project/Site: Riverdale Mill

Method

150.1

160.2

1664B 351.2

353.2

365.4 405.1

410.4

351.2

Total Nitrogen 1664B

365.2/365.3/365

Job ID: 400-242700-1 SDG: Form 2F Table A

**EET PEN** 

**EET PEN** 

**EET PEN** 

Protocol	Laboratory
EPA	EET PEN
EPA	EET PEN
1664B	EET PEN
EPA	EET PEN
FPΔ	EET PEN

1664B

**EPA** 

**EPA** 

#### **Protocol References:**

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

#### **Laboratory References:**

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

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# **Sample Summary**

Client: International Paper Company pject/Site: Riverdale Mill

Job ID: 400-242700-1 SDG: Form 2F Table A

Lab Sample ID Client Sample ID Matrix Collected Received 400-242700-1 DSN005 STORM POND Water 08/29/23 14:50 08/30/23 11:55

# **Client Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

SDG: Form 2F Table A

Lab Sample ID: 400-242700-1

Job ID: 400-242700-1

Matrix: Water

lient Sample ID: DSN005 STORM POND Date Collected: 08/29/23 14:50 Date Received: 08/30/23 11:55

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (EPA 150.1)	7.4	HF			S.U.			08/31/23 14:00	1
Temperature (EPA 150.1)	24.0	HF			Degrees C			08/31/23 14:00	1
Total Suspended Solids (EPA 160.2)	19		5.0	5.0	mg/L			09/04/23 19:21	1
HEM (Oil and Grease) (1664B)	<1.5		4.1	1.5	mg/L		09/07/23 09:32	09/07/23 11:43	1
Nitrogen, Kjeldahl (EPA 351.2)	0.96		0.50	0.26	mg/L		09/05/23 17:08	09/06/23 16:18	1
Nitrate Nitrite as N (EPA 353.2)	0.47		0.050	0.018	mg/L			09/07/23 17:45	1
Phosphorus, Total (EPA 365.4)	0.14		0.10	0.049	mg/L		09/05/23 17:10	09/06/23 11:22	1
Biochemical Oxygen Demand (EPA 405.1)	3.4	b	2.0	2.0	mg/L			08/30/23 16:01	1
Chemical Oxygen Demand (COD) (EPA 410.4)	25		10	6.4	mg/L			09/08/23 10:29	1
Nitrogen, Total (EPA Total Nitrogen)	1.4		0.50	0.26	mg/L			09/01/23 12:25	1

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# **Definitions/Glossary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242700-1 SDG: Form 2F Table A

# ualifiers

General C	hemistry
Qualifier	Qualifier Description
b	Result Detected in the Unseeded Control blank (USB).
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QC

RL

RER

RPD

TEF

TEQ TNTC **Quality Control** 

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Glossary				
Abbreviation	These commonly used abbreviations may or may not be present in this report.			
a	Listed under the "D" column to designate that the result is reported on a dry weight basis			
%R	Percent Recovery			
CFL	Contains Free Liquid			
CFU	Colony Forming Unit			
CNF	Contains No Free Liquid			
DER	Duplicate Error Ratio (normalized absolute difference)			
Dil Fac	Dilution Factor			
DL	Detection Limit (DoD/DOE)			
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample			
DLC	Decision Level Concentration (Radiochemistry)			
EDL	Estimated Detection Limit (Dioxin)			
LOD	Limit of Detection (DoD/DOE)			
LOQ	Limit of Quantitation (DoD/DOE)			
MCL	EPA recommended "Maximum Contaminant Level"			
MDA	Minimum Detectable Activity (Radiochemistry)			
MDC	Minimum Detectable Concentration (Radiochemistry)			
MDL	Method Detection Limit			
ML	Minimum Level (Dioxin)			
MPN	Most Probable Number			
MQL	Method Quantitation Limit			
NC	Not Calculated			
ND	Not Detected at the reporting limit (or MDL or EDL if shown)			
NEG	Negative / Absent			
POS	Positive / Present			
PQL	Practical Quantitation Limit			
PRES	Presumptive			

### **Lab Chronicle**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242700-1 SDG: Form 2F Table A

Lab Sample ID: 400-242700-1

**Matrix: Water** 

ient Sample ID: DSN005 STORM POND

Date Collected: 08/29/23 14:50 Date Received: 08/30/23 11:55

Batch	Batch	D 5	Dil	Initial	Final	Batch	Prepared	Amahrat	Lab
Туре		Run F	actor	Amount	Amount				
Analysis	150.1		1			639368	08/31/23 14:00	SF	EET PEN
Analysis	160.2		1	100 mL	100 mL	639658	09/04/23 19:21	HA	EET PEN
Prep	1664B			964 mL	1000 mL	640054	09/07/23 09:32	AR	EET PEN
Analysis	1664B		1			640088	09/07/23 11:43	AR	EET PEN
Prep	351.2			25 mL	25 mL	639817	09/05/23 17:08	VB	EET PEN
Analysis	351.2		1			640062	09/06/23 16:18	KWS	EET PEN
Analysis	353.2		1	5 mL	5 mL	640174	09/07/23 17:45	DEK	EET PEN
Prep	365.2/365.3/365			25 mL	25 mL	639818	09/05/23 17:10	VB	EET PEN
Analysis	365.4		1	10 mL	10 mL	639943	09/06/23 11:22	VB	EET PEN
Analysis	405.1		1	300 mL	300 mL	639272	08/30/23 16:01	AT	EET PEN
						Completed:	09/04/23 08:24	1	
Analysis	410.4		1	2 mL	2 mL	640225	09/08/23 10:29	CJK	EET PEN
Analysis	Total Nitrogen		1			639484	09/01/23 12:25	DEK	EET PEN
	Analysis Analysis Prep Analysis Prep Analysis Analysis Prep Analysis Analysis Analysis	Type         Method           Analysis         150.1           Analysis         160.2           Prep         1664B           Analysis         1664B           Prep         351.2           Analysis         353.2           Prep         365.2/365.3/365           Analysis         365.4           Analysis         405.1           Analysis         410.4	Type         Method         Run         F.           Analysis         150.1         F.           Analysis         160.2         Frep         1664B           Analysis         1664B         F.         F.           Prep         351.2         F.         F.           Analysis         353.2         F.         F.           Prep         365.2/365.3/365         F.         F.           Analysis         365.4         F.         F.           Analysis         405.1         F.         F.	Type         Method         Run         Factor           Analysis         150.1         1           Analysis         160.2         1           Prep         1664B         1           Analysis         1664B         1           Prep         351.2         1           Analysis         353.2         1           Prep         365.2/365.3/365         1           Analysis         365.4         1           Analysis         405.1         1           Analysis         410.4         1	Type         Method         Run         Factor         Amount           Analysis         150.1         1         1           Analysis         160.2         1         100 mL           Prep         1664B         964 mL           Analysis         1664B         1           Prep         351.2         25 mL           Analysis         353.2         1         5 mL           Prep         365.2/365.3/365         25 mL           Analysis         365.4         1         10 mL           Analysis         405.1         1         300 mL           Analysis         410.4         1         2 mL	Type         Method         Run         Factor         Amount         Amount           Analysis         150.1         1         1           Analysis         160.2         1         100 mL         100 mL           Prep         1664B         964 mL         1000 mL           Analysis         1664B         1         25 mL         25 mL           Analysis         351.2         1         5 mL         5 mL           Analysis         353.2         1         5 mL         5 mL           Prep         365.2/365.3/365         25 mL         25 mL         25 mL           Analysis         365.4         1         10 mL         10 mL           Analysis         405.1         1         300 mL         300 mL           Analysis         410.4         1         2 mL         2 mL	Type         Method         Run         Factor         Amount         Amount         Number           Analysis         150.1         1         639368           Analysis         160.2         1         100 mL         639658           Prep         1664B         964 mL         1000 mL         640054           Analysis         1664B         1         25 mL         640088           Prep         351.2         25 mL         25 mL         639817           Analysis         351.2         1         5 mL         5 mL         640062           Analysis         353.2         1         5 mL         5 mL         640174           Prep         365.2/365.3/365         25 mL         25 mL         639818           Analysis         365.4         1         10 mL         10 mL         639943           Analysis         405.1         1         300 mL         300 mL         639272           Completed:           Analysis         410.4         1         2 mL         2 mL         640225	Type         Method         Run         Factor         Amount         Amount         Number         or Analyzed           Analysis         150.1         1         1         639368         08/31/23 14:00           Analysis         160.2         1         100 mL         639658         09/04/23 19:21           Prep         1664B         964 mL         1000 mL         640054         09/07/23 09:32           Analysis         1664B         1         25 mL         640088         09/07/23 11:43           Prep         351.2         25 mL         25 mL         639817         09/05/23 17:08           Analysis         353.2         1         5 mL         5 mL         640174         09/07/23 17:45           Prep         365.2/365.3/365         25 mL         25 mL         639818         09/05/23 17:10           Analysis         365.4         1         10 mL         10 mL         639943         09/05/23 11:22           Analysis         405.1         1         300 mL         300 mL         639272         08/30/23 16:01           Completed:         09/04/23 08:24           Analysis         410.4         1         2 mL         2 mL         640225         09/08/23 10:29	Type         Method         Run         Factor         Amount         Amount         Number         or Analyzed         Analyst           Analysis         150.1         1         1         639368         08/31/23 14:00         SF           Analysis         160.2         1         100 mL         639658         09/04/23 19:21         HA           Prep         1664B         964 mL         1000 mL         640054         09/07/23 09:32         AR           Analysis         1664B         1         25 mL         640088         09/07/23 11:43         AR           Prep         351.2         25 mL         25 mL         639817         09/05/23 17:08         VB           Analysis         351.2         1         5 mL         5 mL         640062         09/06/23 16:18         KWS           Analysis         353.2         1         5 mL         5 mL         640174         09/07/23 17:45         DEK           Prep         365.2/365.3/365         25 mL         25 mL         639818         09/05/23 17:10         VB           Analysis         365.4         1         10 mL         10 mL         639943         09/06/23 11:22         VB           Analysis         405.1

**Laboratory References:** 

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

**QC Association Summary** Client: International Paper Company Job ID: 400-242700-1 Project/Site: Riverdale Mill SDG: Form 2F Table A eneral Chemistry Analysis Batch: 639272 Lab Sample ID Client Sample ID **Prep Type** Matrix Method **Prep Batch** 400-242700-1 **DSN005 STORM POND** Total/NA Water 405.1 USB 400-639272/1 Method Blank Total/NA Water 405.1 LCS 400-639272/2 Lab Control Sample Total/NA Water 405.1 Analysis Batch: 639368 Lab Sample ID Client Sample ID **Prep Type** Matrix Method **Prep Batch** 400-242700-1 **DSN005 STORM POND** Total/NA Water 150.1 LCS 400-639368/4 Lab Control Sample Total/NA Water 150.1 Analysis Batch: 639484 Lab Sample ID Client Sample ID Method **Prep Type** Matrix **Prep Batch** 400-242700-1 DSN005 STORM POND Total/NA Water Total Nitrogen Analysis Batch: 639658 Lab Sample ID Client Sample ID **Prep Type** Matrix Method **Prep Batch** 400-242700-1 **DSN005 STORM POND** Total/NA Water 160.2 MB 400-639658/1 Total/NA Water 160.2 Method Blank LCS 400-639658/2 Total/NA Water 160.2 Lab Control Sample Prep Batch: 639817 **Prep Batch** Lab Sample ID **Client Sample ID Prep Type** Matrix Method 400-242700-1 **DSN005 STORM POND** Total/NA Water 351.2 MB 400-639817/1-A Method Blank Total/NA Water 351.2 Total/NA Water 351.2 LCS 400-639817/2-A Lab Control Sample **Prep Batch: 639818 Prep Batch** Prep Type Matrix Method Lab Sample ID Client Sample ID **DSN005 STORM POND** Water 365.2/365.3/365 400-242700-1 Total/NA Analysis Batch: 639943 Method **Prep Batch Matrix** Lab Sample ID Client Sample ID **Prep Type DSN005 STORM POND** Total/NA Water 365.4 639818 400-242700-1 MRL 400-639943/10 Lab Control Sample Total/NA Water 365.4 Prep Batch: 640054 Ргер Туре Matrix Method Prep Batch Lab Sample ID Client Sample ID Total/NA Water 1664B **DSN005 STORM POND** 400-242700-1 Total/NA Water 1664B MB 400-640054/1-A Method Blank Total/NA Water 1664B LCS 400-640054/2-A Lab Control Sample Water 1664B Total/NA LCSD 400-640054/3-A Lab Control Sample Dup

### Analysis Batch: 640062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242700-1	DSN005 STORM POND	Total/NA	Water	351.2	639817
MB 400-639817/1-A	Method Blank	Total/NA	Water	351.2	639817
LCS 400-639817/2-A	Lab Control Sample	Total/NA	Water	351.2	639817
MRL 400-640062/10	Lab Control Sample	Total/NA	Water	351.2	

### Analysis Batch: 640088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242700-1	DSN005 STORM POND	Total/NA	Water	1664B	640054

Eurofins Pensacola

# **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242700-1

SDG: Form 2F Table A

## eneral Chemistry (Continued)

### Analysis Batch: 640088 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-640054/1-A	Method Blank	Total/NA	Water	1664B	640054
LCS 400-640054/2-A	Lab Control Sample	Total/NA	Water	1664B	640054
LCSD 400-640054/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	640054

### Analysis Batch: 640174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242700-1	DSN005 STORM POND	Total/NA	Water	353.2	
MB 400-640174/16	Method Blank	Total/NA	Water	353.2	
LCS 400-640174/17	Lab Control Sample	Total/NA	Water	353.2	
MRL 400-640174/18	Lab Control Sample	Total/NA	Water	353.2	

### Analysis Batch: 640225

girdin.					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242700-1	DSN005 STORM POND	Total/NA	Water	410.4	
MB 400-640225/5	Method Blank	Total/NA	Water	410.4	
LCS 400-640225/6	Lab Control Sample	Total/NA	Water	410.4	
MRL 400-640225/7	Lab Control Sample	Total/NA	Water	410.4	

Method: 351.2 - Nitrogen, Total Kjeldahl

< 0.26

Analyte

HEM (Oil and Grease)

Nitrogen, Kjeldahl

Client Sample ID: Method Blank Lab Sample ID: MB 400-639817/1-A Prep Type: Total/NA Matrix: Water Prep Batch: 639817 Analysis Batch: 640062 MB MB MDL Unit **Prepared** Analyzed RL Result Qualifier

0.50

31.70

0.26 mg/L

mg/L

39.9

09/05/23 17:04 09/06/23 16:08

79

78 - 114

9/11/2023

18

## ethod: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 400-639817/2-A **Matrix: Water** Analysis Batch: 640062

Client Sample ID: Lab Control Sample Prep Type: Total/NA **Prep Batch: 639817** 

> %Rec Unit %Rec Limits

Spike LCS LCS Analyte Added Result Qualifier Nitrogen, Kjeldahl 10.0 10.2 90 - 110 mg/L 102

Lab Sample ID: MRL 400-640062/10 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 640062

Spike MRL MRL %Rec Analyte Added Result Qualifier Unit %Rec Limits Nitrogen, Kjeldahl 0.500 0.420 J mg/L 84 50 - 150

### Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 400-640174/16 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 640174

мв мв RI **MDL** Unit Analyte Result Qualifier Prepared Analyzed Dil Fac Nitrate Nitrite as N < 0.018 0.050 0.018 mg/L 09/07/23 17:19

Lab Sample ID: LCS 400-640174/17 Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA

Analysis Batch: 640174

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits Nitrate Nitrite as N 1.00 0.997 90 - 110 mg/L 100

Lab Sample ID: MRL 400-640174/18 Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** Analysis Batch: 640174

Spike MRL MRL %Rec Added Result Qualifier Unit %Rec Limits Analyte 0.0410 J 50 - 150 Nitrate Nitrite as N 0.0500 mg/L

### Method: 365.4 - Phosphorus, Total

Client Sample ID: Lab Control Sample Lab Sample ID: MRL 400-639943/10 Prep Type: Total/NA **Matrix: Water** Analysis Batch: 639943 Spike MRL MRL %Rec Added Result Qualifier Unit %Rec Limits Analyte 0.0400 < 0.023 50 50 - 150 mg/L Phosphorus, Total

### Method: 405.1 - BOD, 5-Day

Client Sample ID: Method Blank Lab Sample ID: USB 400-639272/1 Prep Type: Total/NA **Matrix: Water** 

Analysis Batch: 639272

USB USB **MDL** Unit Prepared Analyzed Dil Fac Result Qualifier RL **Analyte** 2.0 mg/L 08/30/23 13:51 2.0 <2.0 Biochemical Oxygen Demand

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Eurofins Pensacola

## **QC Sample Results**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242700-1 SDG: Form 2F Table A

ethod: 405.1 - BOD, 5-Day (Continued)

Prep Type: Total/NA

Lab Sample ID: LCS 400-639272/2 **Matrix: Water** 

Analysis Batch: 639272

Client Sample ID: Lab Control Sample Prep Type: Total/NA

LCS LCS Spike %Rec Analyte Added Result Qualifier Unit D %Rec Limits 198 Biochemical Oxygen Demand 173 mg/L 88 85 - 115

Method: 410.4 - COD

Lab Sample ID: MB 400-640225/5 **Matrix: Water** 

Client Sample ID: Method Blank Prep Type: Total/NA

Analysis Batch: 640225

MB MB Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Chemical Oxygen Demand (COD) <6.4 10 6.4 mg/L 09/08/23 10:29

Lab Sample ID: LCS 400-640225/6

Lab Sample ID: MRL 400-640225/7

**Matrix: Water** 

Analysis Batch: 640225

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chemical Oxygen Demand (COD)	50.0	53.6		mg/L		107	90 - 110	

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Client Sample ID: Lab Control Sample

**Matrix: Water** 

Analysis Batch: 640225

ı		Spike	MRL	MRL				%Rec	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
İ	Chemical Oxygen Demand (COD)	10.0	13.0		mg/L		130	50 - 150	

3355 McLemore Drive Pensacola, FL 32514 Phone: 850-474-1001 Fax: 850-478-2671

# **Chain of Custody Record**



💸 eurofins |

Environment Testing

Client Information	Sampler CAD	A C.P	ENDECO	Lab P Whit	mire, Chey	enne	R		40	0-2427	00 COC	ng No(s)			22358-417	90.1	
ilent Contact carla Pearson	Phone 334	-418	-523	6 E-Mai	yenne.Whit	mire(	@et.eu	rofins	sus.co	om		'AL	_	Page 1	of 1		
ompany: nternational Paper Company		,,,,	PWSID								uested			Job #:			
ddress	Due Date Request	ed:				T	П	T	1					Preser	vation Cod		
01 County Road 78	TAT Requested (d	ays):												A - HCL B - NaC		M - Hexane N - None	
elma tate, Zip	TAT Requested (d	<b>HSAP</b>												C - Zn A	Acetate	O - AsNaO2 P - Na2O4S	3
L, 36703	Compliance Project	ct: A Yes	No No		5									E-NaH F-MeC	ISO4	Q - Na2SO3 R - Na2S2O S - H2SO4	
hone 34-418-5236(Tel)	PO# 16969625				20									G - Amo	chlor orbic Acid		decahydrate
mail sarla.Pearson@ipaper.com	WO #:				OEN	otal								J - Ice J - DI W		V - MCAA W - pH 4-5	
roject Name	Project #- 40016047				N.C.	Nitrogen, Total			١,					K - EDT		Y - Trizma Z - other (sp	pecify)
form 2F Table A	SSOW#				產	Nitro	0 8							Other:		1-1	
RIVERDALE MILL				Black to	E ST	Pres,	Grea	6-Day						O Lac			
			Sample Type	Matrix (Wester, Smooth,	Iltery 110.4	353.2	OH &	- 80D,	TSS -					漫			
		Sample	(C=comp,	O-waste/oil,	Eleid:Eliter	351.2, 3	1664B	405.1 -	160.2 - TSS					10 to 10 to	and the		Mate
Sample Identification	Sample Date	Time		BY=Tissue, A=Air)	XXX	SIN	SE			30.40			OF REAL PROPERTY.	X 4000	pecial in	structions	/Note:
DSM ODS STOPM POHD	82923	2:50	6	Water	T X	X					- Page-			惟		And the great of a Management of the	
1/1	11	11	9	Water					1								
11	11	11	g	11			X										
11	11	11	6	11				1	X					*			
11	11	11	6	11			1	X									
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								1	+					8 7	1011		1.0
						-	+	+	+	+							1000
and the second s						+		_	+								
				Ann Ann		-	-	+	+	+	+						_
Possible Hazard Identification					Sample	e Dis	posal	(Afe	ee ma	v be a	ssessed	if sample	s are ret	ined long	er than 1	month)	
Non-Hazard Flammable Skin Irritant Po	oison B Unki	nown -	Radiological			Retur	n To C	lient			isposal E	ly Lab	M.	rchive For		Months	
Deliverable Requested: I, II, III, IV, Other (specify)					Specia	Instr	ruction	s/QC	Requ	iiremen	ts:	A	eri	month	dis	NER	
Empty Kit Relinquished by	1 1	Date <sup>-</sup>			Time:					. ,	Meth	od of Shipm			+		
Relinquished by	הות לילים ולים היות לים היות לים היות היות לים היות היות לים היות לים היות לים היות לים היות לים היות לים היות הוות היות היות היות היות היות היות היות	37:	45	P. TANE	DON HE	erved	inti	AU	S	101	more	Date	8 20	23=	1:45	Cempany	n Gu
Relinquished by	Date/fime			Company	Red	eived	LM	.(	0	4	of	Date	7/30	23	1155	Company	7
Relinquished by	Date/Time	-		Company	Red	eived	L/M	7	Tu	u	X/	Date	Time	20 1	155	Company	
	1-1-				Con	ler To	mnerahu	re(e) %	C and	Other Ren	marks			2 -			
Custody Seals Intact: Custody Seal No.: 2366	1341				Coc	-C1 (8)	- peratu	. 2(2)	J and	Salet Mel	THE PARTY OF THE P	5.5	CI	KID			

9/11/202

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# **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242700-1 SDG Number: Form 2F Table A

Login Number: 242700 List Source: Eurofins Pensacola

List Number: 1

Creator: Roberts, Alexis J

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5°C IR10
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.	N/A	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

















# **Accreditation/Certification Summary**

Client: International Paper Company Project/Site: Riverdale Mill Job ID: 400-242700-1 SDG: Form 2F Table A

2

### aboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	<b>US Federal Programs</b>	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703 Generated 9/11/2023 4:49:48 PM

# JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table A

# **JOB NUMBER**

400-242685-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

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# **Eurofins Pensacola**

### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

### **Authorization**

Generated 9/11/2023 4:49:48 PM

Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

14

Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-242685-1 SDG: Form 2F Table A

# **Table of Contents**

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able of Contents	3
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Nethod Summary	6
Sample Summary	
Client Sample Results	8
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Chronicle	10
QC Association	11
QC Sample Results	13
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13

### **Case Narrative**

Client: International Paper Company

piect/Site: Riverdale Mill

Job ID: 400-242685-1 SDG: Form 2F Table A

2

Job ID: 400-242685-1

3

Laboratory: Eurofins Pensacola

4

Narrative

5

Job Narrative 400-242685-1 0

Receipt

and wh

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and wh required, properly preserved and on ice. The temperature of the cooler at receipt was 0.6° C.

b

**General Chemistry** 

9

Method 351.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-639817 and analytical batch 400-640062 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

10

Method 405.1: The USB dilution water D.O. depletion was greater than 0.2 mg/L. The associated sample results in batch 400-639272 are qualified and reported. USB reported at 0.38 mg/L.

**Organic Prep** 

12

Method 1664B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 400-640054 and analytical batch 400-640088.

4.6

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# **Detection Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242685-1 SDG: Form 2F Table A

# lient Sample ID: DSN006 STORM POND

Lab	Sample	ID: 400	-242685-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	DI	Method	Prep Type
pH	7.7	HF			S.U.	1		150.1	Total/NA
Temperature	23.0	HF			Degrees C	1		150.1	Total/NA
Nitrogen, Kjeldahl	0.75		0.50	0.26	mg/L	1	:	351.2	Total/NA
Phosphorus, Total	0.28		0.10	0.049	mg/L	. 1	. :	365.4	Total/NA
Biochemical Oxygen Demand	2.1	b	2.0	2.0	mg/L	1		405.1	Total/NA
Chemical Oxygen Demand (COD)	29		10	6.4	mg/L	1	-	410.4	Total/NA
Nitrogen, Total	0.75		0.50	0.26	mg/L	1		Total Nitrogen	Total/NA

# **Method Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242685-1 SDG: Form 2F Table A

Method	Method Description	Protocol	Laboratory
150.1	pH (Electrometric)	EPA	EET PEN
60.2	Solids, Total Suspended (TSS)	EPA	EET PEN
664B	HEM and SGT-HEM	1664B	EET PEN
51.2	Nitrogen, Total Kjeldahl	EPA	EET PEN
53.2	Nitrogen, Nitrate-Nitrite	EPA	EET PEN
65.4	Phosphorus, Total	EPA	EET PEN
05.1	BOD, 5-Day	EPA	EET PEN
10.4	COD	EPA	EET PEN
otal Nitrogen	Nitrogen, Total	EPA	EET PEN
664B	HEM and SGT-HEM (Aqueous)	1664B	EET PEN
51.2	Nitrogen, Total Kjeldahl	EPA	EET PEN
865.2/365.3/365	Phosphorus, Total	EPA	EET PEN



### Protocol References:

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

### Laboratory References:

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

# **Sample Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242685-1

SDG: Form 2F Table A

Lab Sample ID 400-242685-1

**Client Sample ID** DSN006 STORM POND Matrix Water

Collected

Received 08/29/23 15:10 08/30/23 11:55

# **Client Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242685-1 SDG: Form 2F Table A

Lab Sample ID: 400-242685-1

**Matrix: Water** 

ient Sample ID: DSN006 STORM POND

Date Collected: 08/29/23 15:10 Date Received: 08/30/23 11:55

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (EPA 150.1)	7.7	HF			S.U.			08/31/23 14:00	1
Temperature (EPA 150.1)	23.0	HF			Degrees C			08/31/23 14:00	1
Total Suspended Solids (EPA 160.2)	<5.0		5.0	5.0	mg/L			09/04/23 19:21	1
HEM (Oil and Grease) (1664B)	<1.4		4.0	1.4	mg/L		09/07/23 09:32	09/07/23 11:43	1
Nitrogen, Kieldahl (EPA 351.2)	0.75		0.50	0.26	mg/L		09/05/23 17:08	09/06/23 16:19	1
Nitrate Nitrite as N (EPA 353.2)	< 0.018		0.050	0.018	mg/L			09/07/23 17:38	1
Phosphorus, Total (EPA 365.4)	0.28		0.10	0.049	mg/L		09/05/23 17:10	09/06/23 11:24	1
Biochemical Oxygen Demand (EPA 405.1)	2.1	b	2.0	2.0	mg/L			08/30/23 15:38	1
Chemical Oxygen Demand (COD) (EPA 410.4)	29		10	6.4	mg/L			09/08/23 10:29	1
Nitrogen, Total (EPA Total Nitrogen)	0.75		0.50	0.26	mg/L			09/01/23 12:25	1







# **Definitions/Glossary**

Client: International Paper Company

**Practical Quantitation Limit** 

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Presumptive **Quality Control** 

Project/Site: Riverdale Mill

Job ID: 400-242685-1 SDG: Form 2F Table A

### ualifiers

Genera	Ch	emi	stry	1
--------	----	-----	------	---

Qualifier	Qualifier Description
b	Result Detected in the Unseeded Control blank (USB).
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.



PQL **PRES** 

QC RER

RL

**RPD** 

TEQ

TNTC

Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
n	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	

Eurofins Pensacola

### Lab Chronicle

Client: International Paper Company

roject/Site: Riverdale Mill

Job ID: 400-242685-1

SDG: Form 2F Table A

ient Sample ID: DSN006 STORM POND Lab Sample ID: 400-242685-1

Date Collected: 08/29/23 15:10 Date Received: 08/30/23 11:55

**Matrix: Water** 

	Batch Method	Run Fac		Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
	150.1		1	W. 1		639368	08/31/23 14:00	SF	EET PEN
Analysis	160.2		1	100 mL	100 mL	639658	09/04/23 19:21	HA	EET PEN
Prep	1664B			1006 mL	1000 mL	640054	09/07/23 09:32	AR	EET PEN
Analysis	1664B		1			640088	09/07/23 11:43	AR	EET PEN
Prep	351.2			25 mL	25 mL	639817	09/05/23 17:08	VB	EET PEN
Analysis	351.2		1			640062	09/06/23 16:19	KWS	EET PEN
Analysis	353.2		1	5 mL	5 mL	640174	09/07/23 17:38	DEK	EET PEN
Prep	365.2/365.3/365			25 mL	25 mL	639818	09/05/23 17:10	VB	EET PEN
Analysis	365.4		1	10 mL	10 mL	639943	09/06/23 11:24	VB	EET PEN
Analysis	405.1		1	300 mL	300 mL	639272	08/30/23 15:38	AT	EET PEN
						Completed:	09/04/23 08:24	1	
Analysis	410.4		1	2 mL	2 mL	640225	09/08/23 10:29	CJK	EET PEN
Analysis	Total Nitrogen		1			639484	09/01/23 12:25	DEK	EET PEN
	Analysis Prep Analysis Prep Analysis Prep Analysis Prep Analysis Prep Analysis Analysis Analysis	Analysis 150.1 Analysis 160.2 Prep 1664B Analysis 1664B Prep 351.2 Analysis 351.2 Analysis 353.2 Prep 365.2/365.3/365 Analysis 365.4 Analysis 405.1 Analysis 410.4	Type         Method         Run         Face           Analysis         150.1         4.0.2         4.0.2         4.0.4         4.0	Type         Method         Run         Factor           Analysis         150.1         1           Analysis         160.2         1           Prep         1664B         1           Analysis         1664B         1           Prep         351.2         1           Analysis         353.2         1           Prep         365.2/365.3/365         3           Analysis         365.4         1           Analysis         405.1         1           Analysis         410.4         1	Type         Method         Run         Factor         Amount           Analysis         150.1         1         1           Analysis         160.2         1         100 mL           Prep         1664B         1         1006 mL           Analysis         1664B         1         25 mL           Analysis         351.2         1         5 mL           Analysis         353.2         1         5 mL           Analysis         365.2/365.3/365         25 mL         25 mL           Analysis         405.1         1         300 mL           Analysis         410.4         1         2 mL	Type         Method         Run         Factor         Amount         Amount           Analysis         150.1         1         1           Analysis         160.2         1         100 mL         100 mL           Prep         1664B         1         1006 mL         1000 mL           Analysis         1664B         1         25 mL         25 mL           Analysis         351.2         1         5 mL         5 mL           Analysis         353.2         1         5 mL         5 mL           Analysis         365.2/365.3/365         25 mL         25 mL           Analysis         365.4         1         10 mL         10 mL           Analysis         405.1         1         300 mL         300 mL	Type         Method         Run         Factor         Amount         Amount         Number           Analysis         150.1         1         639368           Analysis         160.2         1         100 mL         100 mL         639658           Prep         1664B         1006 mL         1000 mL         640054         640088           Analysis         1664B         1         25 mL         25 mL         639817           Analysis         351.2         1         5 mL         5 mL         640062           Analysis         353.2         1         5 mL         5 mL         640174           Prep         365.2/365.3/365         25 mL         25 mL         639818           Analysis         365.4         1         10 mL         10 mL         639943           Analysis         405.1         1         300 mL         300 mL         639272         Completed:           Analysis         410.4         1         2 mL         2 mL         640225	Type         Method         Run         Factor         Amount         Amount         Number         or Analyzed           Analysis         150.1         1         1         639368         08/31/23 14:00           Analysis         160.2         1         100 mL         100 mL         639658         09/04/23 19:21           Prep         1664B         1006 mL         1000 mL         640054         09/07/23 09:32           Analysis         1664B         1         25 mL         25 mL         639817         09/05/23 11:43           Prep         351.2         2         25 mL         25 mL         639817         09/05/23 17:08           Analysis         351.2         1         5 mL         5 mL         640062         09/06/23 16:19           Analysis         353.2         1         5 mL         5 mL         640174         09/07/23 17:38           Prep         365.2/365.3/365         25 mL         25 mL         639818         09/05/23 17:10           Analysis         365.4         1         10 mL         10 mL         639943         09/06/23 11:24           Analysis         405.1         1         300 mL         300 mL         639272         08/30/23 15:38 <t< td=""><td>Type         Method         Run         Factor         Amount         Amount         Number         or Analyzed         Analyst           Analysis         150.1         1         1         639368         08/31/23 14:00         SF           Analysis         160.2         1         100 mL         100 mL         639658         09/04/23 19:21         HA           Prep         1664B         1         1006 mL         1000 mL         640054         09/07/23 09:32         AR           Analysis         1664B         1         25 mL         25 mL         639817         09/05/23 17:08         VB           Prep         351.2         1         5 mL         5 mL         640062         09/06/23 16:19         KWS           Analysis         353.2         1         5 mL         5 mL         640174         09/07/23 17:38         DEK           Prep         365.2/365.3/365         25 mL         25 mL         639818         09/05/23 17:10         VB           Analysis         365.4         1         10 mL         10 mL         639943         09/06/23 11:24         VB           Analysis         405.1         1         300 mL         300 mL         639272         08/30/23 15:38</td></t<>	Type         Method         Run         Factor         Amount         Amount         Number         or Analyzed         Analyst           Analysis         150.1         1         1         639368         08/31/23 14:00         SF           Analysis         160.2         1         100 mL         100 mL         639658         09/04/23 19:21         HA           Prep         1664B         1         1006 mL         1000 mL         640054         09/07/23 09:32         AR           Analysis         1664B         1         25 mL         25 mL         639817         09/05/23 17:08         VB           Prep         351.2         1         5 mL         5 mL         640062         09/06/23 16:19         KWS           Analysis         353.2         1         5 mL         5 mL         640174         09/07/23 17:38         DEK           Prep         365.2/365.3/365         25 mL         25 mL         639818         09/05/23 17:10         VB           Analysis         365.4         1         10 mL         10 mL         639943         09/06/23 11:24         VB           Analysis         405.1         1         300 mL         300 mL         639272         08/30/23 15:38

<sup>&</sup>lt;sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

### **Laboratory References:**

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

**QC Association Summary** Client: International Paper Company Job ID: 400-242685-1 Project/Site: Riverdale Mill SDG: Form 2F Table A Jeneral Chemistry Analysis Batch: 639272 Lab Sample ID Client Sample ID Prep Type Matrix Method Prep Batch 400-242685-1 DSN006 STORM POND Total/NA Water 405.1 USB 400-639272/1 Method Blank Total/NA Water 405.1 LCS 400-639272/2 Total/NA Lab Control Sample Water 405.1 Analysis Batch: 639368 Matrix Method Lab Sample ID Client Sample ID **Prep Type** Prep Batch 400-242685-1 **DSN006 STORM POND** Total/NA Water 150.1 LCS 400-639368/4 Lab Control Sample Total/NA Water 150.1 400-242685-1 DU **DSN006 STORM POND** Total/NA Water 150.1 Analysis Batch: 639484 Lab Sample ID Client Sample ID Matrix Method **Prep Type** Prep Batch 400-242685-1 **DSN006 STORM POND** Total/NA Water Total Nitrogen Analysis Batch: 639658 Lab Sample ID Client Sample ID Matrix Method **Prep Type** Prep Batch 400-242685-1 **DSN006 STORM POND** Total/NA Water 160.2 Total/NA MB 400-639658/1 Method Blank Water 160.2 LCS 400-639658/2 Lab Control Sample Total/NA Water 160.2 Prep Batch: 639817 Client Sample ID Method Lab Sample ID **Prep Type** Matrix Prep Batch 400-242685-1 **DSN006 STORM POND** Total/NA Water 351.2 MB 400-639817/1-A Method Blank Total/NA Water 351.2 LCS 400-639817/2-A Total/NA Water 351.2 Lab Control Sample Prep Batch: 639818 Lab Sample ID Client Sample ID Prep Type Matrix Method Prep Batch 400-242685-1 **DSN006 STORM POND** Total/NA Water 365.2/365.3/365 MB 400-639818/1-A Total/NA Water 365.2/365.3/365 Method Blank LCS 400-639818/2-A Total/NA Water 365.2/365.3/365 Lab Control Sample Analysis Batch: 639943 Method **Prep Batch** Lab Sample ID Client Sample ID **Prep Type** Matrix **DSN006 STORM POND** Total/NA Water 365.4 639818 400-242685-1 Total/NA Water 365.4 639818 MB 400-639818/1-A Method Blank 639818 LCS 400-639818/2-A Lab Control Sample Total/NA Water 365.4 Total/NA Water 365.4 MRL 400-639943/10 Lab Control Sample 

P	ep	Dat	Cn:	0400	134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242685-1	DSN006 STORM POND	Total/NA	Water	1664B	
MB 400-640054/1-A	Method Blank	Total/NA	Water	1664B	
LCS 400-640054/2-A	Lab Control Sample	Total/NA	Water	1664B	
LCSD 400-640054/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	

### Analysis Batch: 640062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242685-1	DSN006 STORM POND	Total/NA	Water	351.2	639817
MB 400-639817/1-A	Method Blank	Total/NA	Water	351.2	639817
LCS 400-639817/2-A	Lab Control Sample	Total/NA	Water	351.2	639817

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# **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242685-1 SDG: Form 2F Table A

2

# eneral Chemistry (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 400-640062/10	Lab Control Sample	Total/NA	Water	351.2	

### Analysis Batch: 640088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242685-1	DSN006 STORM POND	Total/NA	Water	1664B	640054
MB 400-640054/1-A	Method Blank	Total/NA	Water	1664B	640054
LCS 400-640054/2-A	Lab Control Sample	Total/NA	Water	1664B	640054
LCSD 400-640054/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	640054

### Analysis Batch: 640174

Lab Sample ID 400-242685-1	Client Sample ID DSN006 STORM POND	Prep Type Total/NA	Matrix Water	Method 353.2	Prep Batch
MB 400-640174/16	Method Blank	Total/NA	Water	353.2	
LCS 400-640174/17	Lab Control Sample	Total/NA	Water	353.2	
MRL 400-640174/18	Lab Control Sample	Total/NA	Water	353.2	

### Analysis Batch: 640225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242685-1	DSN006 STORM POND	Total/NA	Water	410.4	
MB 400-640225/5	Method Blank	Total/NA	Water	410.4	
LCS 400-640225/6	Lab Control Sample	Total/NA	Water	410.4	
MRL 400-640225/7	Lab Control Sample	Total/NA	Water	410.4	

Spike

Added

Sample Sample

7.7 HF

23.0 HF

Method: 160.2 - Solids, Total Suspended (TSS)

Result Qualifier

мв мв Result Qualifier

MB MB

Qualifier

Result

<1.4

< 0.50

7.00

Analyte

Analyte

**Analyte** 

Analyte

Temperature

Matrix: Water

Total Suspended Solids

**Total Suspended Solids** 

**Matrix: Water** 

HEM (Oil and Grease)

Matrix: Water

HEM (Oil and Grease)

**Matrix: Water** 

HEM (Oil and Grease)

**Analyte** 

Analyte

**Matrix: Water** 

pH

**Matrix: Water** 

Lab Sample ID: 400-242685-1 DU

Lab Sample ID: MB 400-639658/1

Lab Sample ID: LCS 400-639658/2

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 400-640054/1-A

Lab Sample ID: LCS 400-640054/2-A

Lab Sample ID: LCSD 400-640054/3-A

Analysis Batch: 639368

Analysis Batch: 639658

Analysis Batch: 639658

Analysis Batch: 640088

Analysis Batch: 640088

Analysis Batch: 640088

рΗ

RPD

Limit

5

30

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Dil Fac

%Rec Limits

Client Sample ID: Method Blank

Analyzed

09/04/23 19:21

%Rec

Limits

98.6 - 101.

Prep Type: Total/NA

Prep Type: Total/NA

RPD

Client Sample ID: DSN006 STORM POND

D %Rec

D

100

%Rec

79-124

RL

4.0

Spike

Added

Spike

Added

39.9

Spike

Added

39.9

297

RL

0.50

Result Qualifier 297

LCS LCS

LCS LCS

DU DU

7.8

22.7

Result Qualifier

**MDL** Unit

0.50 mg/L

**MDL** Unit

LCS LCS

LCSD LCSD

Result Qualifier

31.00

31.70

Result Qualifier

1.4 mg/L

7.0

Result Qualifier

Unit

SII

Unit

S.U.

Degrees C

Unit mg/L

Unit

mg/L

Unit

mg/L

100

**Prepared** 

%Rec

D %Rec

78

79

Prepared

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 640054

Analyzed Dil Fac 09/07/23 09:32 09/07/23 11:43

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 640054

%Rec Limits

78-114

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

78 - 114

Prep Batch: 640054 %Rec **RPD** Limits

Limit RPD 18

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Prep Type: Total/NA

Prep Batch: 639817

## ethod: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 400-639817/1-A

**Matrix: Water** 

Analysis Batch: 640062

<0.26

**Analyte** 

MB	MB
Result	Qualifier

RL 0.50 MDL Unit 0.26 mg/L **Prepared** 

Analyzed 09/05/23 17:04 09/06/23 16:08

Client Sample ID: Method Blank

Dil Fac

Lab Sample ID: LCS 400-639817/2-A

**Matrix: Water** 

Analyte

Nitrogen, Kjeldahl

Analysis Batch: 640062

Spike Added 10.0

Spike

Added

0.500

LCS LCS Result Qualifier 10.2

MRL MRL

0.420 J

Result Qualifier

Unit

mg/L

Unit %Rec mg/L 102 Prep Type: Total/NA Prep Batch: 639817 %Rec

Limits

Lab Sample ID: MRL 400-640062/10

**Matrix: Water** 

Nitrogen, Kjeldahl

Analysis Batch: 640062

Analyte Nitrogen, Kjeldahl Client Sample ID: Lab Control Sample

Prep Type: Total/NA

%Rec %Rec

Client Sample ID: Lab Control Sample

Limits 50 - 150

Client Sample ID: Lab Control Sample

%Rec

Limits

Client Sample ID: Method Blank

90 - 110

### Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 400-640174/16

**Matrix: Water** 

Analysis Batch: 640174

Analyte Nitrate Nitrite as N

MR MB

Result Qualifier < 0.018

RL 0.050

**MDL** Unit 0.018 mg/L **Prepared** 

Analyzed

Prep Type: Total/NA

09/07/23 17:19

Prep Type: Total/NA

Dil Fac

Lab Sample ID: LCS 400-640174/17

**Matrix: Water** 

Analysis Batch: 640174

Analyte

Nitrate Nitrite as N

Lab Sample ID: MRL 400-640174/18

**Matrix: Water** Analysis Batch: 640174

Analyte

Spike Added 0.0500 Nitrate Nitrite as N

Spike LCS LCS Added 1.00

Result Qualifier 0.997

MRL MRL

0.0410 J

Result Qualifier Unit

Unit mg/L

mg/L

%Rec 100

90 - 110

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 639818

%Rec Limits %Rec

50 - 150

Client Sample ID: Method Blank

82

Method: 365.4 - Phosphorus, Total

Lab Sample ID: MB 400-639818/1-A

Analysis Batch: 639943

**Matrix: Water** 

Phosphorus, Total

Analyte

мв мв

Result Qualifier < 0.049

RL 0.10

MDL Unit 0.049 mg/L Prepared

Analyzed 09/05/23 17:06 09/06/23 11:12 Dil Fac

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Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

### ethod: 365.4 - Phosphorus, Total (Continued)

Lab Sample ID: LCS 400-639818/2-A				Clie	nt Sai	mple ID	: Lab Control Sample
Matrix: Water							Prep Type: Total/NA
Analysis Batch: 639943							Prep Batch: 639818
	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Phosphorus, Total	1.98	2.05		mg/L		104	75 - 113
Γ							of the control of

Lab Sample ID: MRL 400-639943/10				Clie	nt Sa	mple ID	: Lab Control Sample
Matrix: Water							Prep Type: Total/NA
Analysis Batch: 639943							
	Spike	MRL	MRL				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Phosphorus, Total	0.0400	< 0.023		mg/L		50	50 - 150

# Method: 405.1 - BOD, 5-Day

**Matrix: Water** 

Matrix: Water

**Matrix: Water** 

Lab Sample ID: USB 400-639272/1

Lab Sample ID: LCS 400-639272/2

Lab Sample ID: MB 400-640225/5

Lab Sample ID: LCS 400-640225/6

Analysis Batch: 639272	USB	USB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			08/30/23 13:51	1

Ana	lysis Batch: 639272								
		Spike	LCS	LCS				%Rec	
Analy	yte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Bioch	nemical Oxygen Demand	198	173		mg/L		88	85 - 115	

### Method: 410.4 - COD

Analysis Batch: 640225									
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand (COD)	<6.4		10	6.4	mg/L			09/08/23 10:29	1

Matrix: Water							Prep Type: Total/NA
Analysis Batch: 640225							
	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chemical Oxygen Demand (COD)	50.0	53.6		mg/L		107	90 - 110

Lab Sample ID: MRL 400-640225/7 Matrix: Water				Clie	nt Sar	mple ID	: Lab Control Sample Prep Type: Total/NA
Analysis Batch: 640225							Mar.
	Spike	MRL	MRL				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chemical Oxygen Demand (COD)	10.0	13.0		mg/L		130	50 - 150

3355 McLemore Drive Pensacola, FL 32514 Phone: 850-474-1001 Fax: 850-478-2671

# **Chain of Custody Record**

eurofins | Environment Testing

Client Information	Phone 334	LAC.	PEAR	White	nire, Chey	enne	R		4	00-242	685 CO			COC No 400-121856-417	90.1
lient Contact Carla Pearson	Phone 334	-418	-52	36 E-Mail	enne Whit	mire@	@et.eur	ofins	us.cor	n I		A	_	Page Page 1 of 1	
ompany.		110	PWSID <sup>-</sup>					Ana	heis	Poor	ested			Job #	
nternational Paper Company	Due Date Request	ed:			1	T	П	Ana	lysis	Requ	ested			Preservation Cod	les: M - Hexane
01 County Road 78	TAT Requested (d	ays):	~1					1						A - HCL B - NaOH	N - None O - AsNaO2
elma tate, Zip		18	P'					1						C - Zn Acetate D - Nitric Acid	P - Na2O4S
L, 36703	Compliance Project	ct: A Yes	à No											E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2O3
hone 34-418-5236(Tel)	PO#- 16969625					1								G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
mail:	WO #:				ROLING	E								I - Ice J - Di Water	U - Acetone V - MCAA
Carla.Pearson@ipaper.com roject Name	Project #:				加大	Nitrogen, Total				H				K-EDTA L-EDA	W - pH 4-5 Y - Trizma
form 2F Table A	40016047 SSOW#:					trog			ature			1		23.	Z - other (specify)
RUBDALENILL					Sar	res, N	Sa Si	9-Day	ed me	1				5	
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp,	Matrix (W=water, S=polid, O=weste/oil, BT=Tissue, A=Air)	Field(Ellisted	351.2, 353.2 PI		405.1 - BOD, 5-	150.1 - pH & Te					Other:	structions/Note:
Sample Identification	Sample Date		G-grab)	all a second de l'accepte d'il description de	XX S	S	SIN	30 14	N N			維達	# 45	X Marie	
DSHOOLD STORM POHD	82923	3:10	G	Water	X	X								<b>3</b>	
11	11	11	6	11			X	T							
11	111	11	oco	11			1						1		
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						+		+	+	+	+-	+	9		
		-				+		+	+	H	-	-	1 8	DIT.	0 31
		-				+	-	-	+-	+	$\perp$	_	1	Takh	- 8.57
						_	1		_	1		-		Temp	- +1.0
													1		
Possible Hazard Identification					Sampl	e Dis	posal (	A fe	e may	be as:	sessed i	f sampl		ined longer than 1	
Non-Hazard Flammable Skin Irritant Po	ison B Unk	nown	Radiologica	1			n To Cl		Requi	Dis	sposal B	Lab	A	rchive For	Months
		In									111	d of Shipm	TITOTI	th, dispo	8
Empty Kit Relinguished by:	DateGme	Date <sup>-</sup>		Company	Time:	Doved	hv	-	~	-	Metric			,	Cempany
Relinquished	830 2	3 7:	45	P-RIVE	MATE!	lu	stod	u à	CA	e-to	du		8 30	33 7:45	Suga Cal
Relinquished by:	Date/Time			Company	Rec	eived	py.	0	1	·K	_ 0	Date	730 Q	3 11:55	Company
Relinquished by:	Date/Time			Company	Rec	ceived	by						/Time		Company
Custody Seals Intact:   Custody Seal No.: 723(4	ha				Cod	oler Te	mperatur	e(s) °C	and O	her Rem	arks	-	T.00		
Custody Seals Intact: Custody Seal No.: 23364	100										(	2.6	IR8		

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## **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242685-1 SDG Number: Form 2F Table A

List Source: Eurofins Pensacola

List Number: 1

Creator: Roberts, Alexis J

Login Number: 242685

Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td> <td></td>	N/A		
The cooler's custody seal, if present, is intact.	N/A		
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.	True		
Cooler Temperature is acceptable.	True		
Cooler Temperature is recorded.	True	0.6°C IR8	
COC is present.	True		
COC is filled out in ink and legible.	True		
COC is filled out with all pertinent information.	False	COC not relinquished.	
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").	N/A		
Multiphasic samples are not present.	True		

True

N/A





















Samples do not require splitting or compositing.

Residual Chlorine Checked.

# **Accreditation/Certification Summary**

Client: International Paper Company

Job ID: 400-242685-1 SDG: Form 2F Table A "-bject/Site: Riverdale Mill

## iboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

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# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703

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# JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table B

# **JOB NUMBER**

400-242687-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514



# **Eurofins Pensacola**

### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

### **Authorization**

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Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-242687-1 SDG: Form 2F Table B

# **Table of Contents**

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Detection Summary	5
Method Summary	6
Sample Summary	7
Client Sample Results	
Definitions	9
Chronicle	10
QC Association	11
QC Sample Results	12
Chain of Custody	15
Receipt Checklists	16
Certification Summary	















### Case Narrative

Client: International Paper Company

"-oject/Site: Riverdale Mill

Job ID: 400-242687-1 SDG: Form 2F Table B

Job ID: 400-242687-1

Laboratory: Eurofins Pensacola

**Narrative** 

**Job Narrative** 

400-242687-1

### Receipt

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.3° C.

### Dioxin

Method 1613B: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD associated with the following samples run on instrument 12D5 exceeded this criteria: DSN004 STORM POND (400-242687-1), (CCV 320-707850/2), (LCS 320-706202/2-A), (LCSD 320-706202/3-A) and (MB 320-706202/1-A). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

Method 1613B: The ending resolution check indicated that the instrument was at slightly less than 10,000 resolution. The samples were evaluated for high mass fragmentation breakthrough and none was found. There is no adverse impact on the data. The following samples are impacted. DSN004 STORM POND (400-242687-1), (CCV 320-707850/2), (LCS 320-706202/2-A), (LCSD 320-706202/3-A), (MB 320-706202/1-A) and (WDM 320-707850/1)

### **General Chemistry**

Method 1650 Rev. C: Breakthrough exceeded 25% for the following sample: DSN004 STORM POND (400-242687-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# **Detection Summary**

Client: International Paper Company

Job ID: 400-242687-1 Project/Site: Riverdale Mill

SDG: Form 2F Table B

Lab Sample ID: 400-242687-1

ient Sam	ple ID: DS	N004 STORM	POND

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Adsorbable Organic Halides	0.28		0.020	0.0062	mg/L	1		1650 Rev. C	Total/NA

# **Method Summary**

Client: International Paper Company Project/Site: Riverdale Mill Job ID: 400-242687-1 SDG: Form 2F Table B

m	2F	Table	В	
	_			

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET PEN
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET PEN
1613B	Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS	EPA	EET SAC
1650 Rev. C	Adsorbable Organic Halides (AOX)	EPA	EET SAV
1613B	Separatory Funnel (L/L) Extraction with Soxhlet Extraction of Dioxin and Furans	EPA	EET SAC
625	Liquid-Liquid Extraction	EPA	EET PEN
Carbon Trap	Carbon Trap Preparation	EPA-17	EET SAV

### **Protocol References:**

EPA = US Environmental Protection Agency

EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colormetric Titration," EPA, February 1992

### **Laboratory References:**

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

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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14

# **Sample Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242687-1 SDG: Form 2F Table B

2

 Lab Sample ID
 Client Sample ID
 Matrix
 Collected
 Received

 400-242687-1
 DSN004 STORM POND
 Water
 08/29/23 14:40
 08/30/23 11:55

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13

14

# **Client Sample Results**

Client: International Paper Company

Dect/Site: Riverdale Mill

Job ID: 400-242687-1

SDG: Form 2F Table B

ient Sample ID: DSN004 STORM POND

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Result Qualifier

Date Collected: 08/29/23 14:40 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242687-1

Analyzed

Prepared

**Matrix: Water** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.00090		0.0010	0.00090	mg/L			09/08/23 10:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	85		78 - 118					09/08/23 10:46	1
Dibromofluoromethane	107		81 - 121					09/08/23 10:46	1
Toluene-d8 (Surr)	95		80 - 120					09/08/23 10:46	1

**MDL** Unit

2,3,4,6-Tetrachlorophenol	<0.0016		0.010	0.0016	mg/L	09/05/23 16:3	7 09/08/23 02:01	1
2,4,5-Trichlorophenol	<0.0038		0.010	0.0038	mg/L	09/05/23 16:3	7 09/08/23 02:01	1
2,4,6-Trichlorophenol	< 0.0027		0.010	0.0027	mg/L	09/05/23 16:3	7 09/08/23 02:01	1
Pentachlorophenol	<0.0014		0.021	0.0014	mg/L	09/05/23 16:3	7 09/08/23 02:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	75		15 - 135			09/05/23 16:3	7 09/08/23 02:01	1
2-Fluorobiphenyl	86		32 - 109			09/05/23 16:3	7 09/08/23 02:01	1
2-Fluorophenol	65		10 - 104			09/05/23 16:3	7 09/08/23 02:01	1
Nitrobenzene-d5	78		31 - 111			09/05/23 16:3	7 09/08/23 02:01	1
Phenol-d5	51		10-110			09/05/23 16:3	7 09/08/23 02:01	1
Terphenyl-d14	104		30 - 129			09/05/23 16:3	7 09/08/23 02:01	1

Terpriority:-u 14	104		00-120				00/00/20 10.07	00/00/20 02.07	'
Method: EPA 1613B - Tetra Ch	Iorinated D	ioxins & F	urans ID HR	GC/HRM	S				
Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.38		9.5	0.38	pg/L		09/14/23 14:31	09/21/23 02:13	1
2,3,7,8-TCDF	<0.30		9.5	0.30	pg/L		09/14/23 14:31	09/21/23 02:13	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	71		31 - 137				09/14/23 14:31	09/21/23 02:13	1
13C-2,3,7,8-TCDF	70		29 - 140				09/14/23 14:31	09/21/23 02:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37CI4-2,3,7,8-TCDD	86		42 - 164				09/14/23 14:31	09/21/23 02:13	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Adsorbable Organic Halides (EPA	0.28		0.020	0.0062	mg/L		09/12/23 15:03	09/12/23 20:19	1

1650 Rev. C)

# **Definitions/Glossary**

Client: International Paper Company

"oject/Site: Riverdale Mill

Job ID: 400-242687-1 SDG: Form 2F Ta

2007-1	
able B	

#### lossary

TEF

TEQ TNTC Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Abbreviation	These commonly used abbreviations may or may not be present in this report.	
T .	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
OD	Limit of Detection (DoD/DOE)	
_OQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ИL	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	
C	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	

#### Lab Chronicle

Client: International Paper Company

ient Sample ID: DSN004 STORM POND

Description of the second seco

Date Collected: 08/29/23 14:40

Date Received: 08/30/23 11:55

Job ID: 400-242687-1 SDG: Form 2F Table B

Lab Sample ID: 400-242687-1

**Matrix: Water** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	640185	09/08/23 10:46	WPD	EET PEN
Total/NA	Prep	625			242.8 mL	1 mL	639791	09/05/23 16:37	BKL	EET PEN
Total/NA	Analysis	625.1		1	0.4 mL	0.4 mL	640110	09/08/23 02:01	S1B	EET PEN
Total/NA	Prep	1613B			1050 mL	20.0 uL	706202	09/14/23 14:31	CGB	EET SAC
Total/NA	Analysis	1613B		1	1 Sample	1 Sample	707850	09/21/23 02:13	DB	EET SAC
Total/NA	Prep	Carbon Trap			100 mL	100 mL	797647	09/12/23 15:03	JLD	EET SAV
Total/NA	Analysis	1650 Rev. C		1			797814	09/12/23 20:19	JLD	EET SAV

#### **Laboratory References:**

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

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

### **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242687-1 SDG: Form 2F Table B

#### C/MS VOA

#### Analysis Batch: 640185

Lab Sample ID 400-242687-1	Client Sample ID DSN004 STORM POND	Prep Type Total/NA	Matrix Water	Method 624.1	Prep Batch
MB 400-640185/5	Method Blank	Total/NA	Water	624.1	
LCS 400-640185/3	Lab Control Sample	Total/NA	Water	624.1	

#### **GC/MS Semi VOA**

#### Prep Batch: 639791

Lab Sample ID	.Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242687-1	DSN004 STORM POND	Total/NA	Water	625	
MB 400-639791/1-A	Method Blank	Total/NA	Water	625	
LCS 400-639791/2-A	Lab Control Sample	Total/NA	Water	625	

#### Analysis Batch: 640110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242687-1	DSN004 STORM POND	Total/NA	Water	625.1	639791

#### Analysis Batch: 640117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-639791/1-A	Method Blank	Total/NA	Water	625.1	639791
LCS 400-639791/2-A	Lab Control Sample	Total/NA	Water	625.1	639791

### **Specialty Organics**

#### **Prep Batch: 706202**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242687-1	DSN004 STORM POND	Total/NA	Water	1613B	
MB 320-706202/1-A	Method Blank	Total/NA	Water	1613B	
LCS 320-706202/2-A	Lab Control Sample	Total/NA	Water	1613B	
LCSD 320-706202/3-A	Lab Control Sample Dup	Total/NA	Water	1613B	

#### Analysis Batch: 707850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242687-1	DSN004 STORM POND	Total/NA	Water	1613B	706202
MB 320-706202/1-A	Method Blank	Total/NA	Water	1613B	706202
LCS 320-706202/2-A	Lab Control Sample	Total/NA	Water	1613B	706202
LCSD 320-706202/3-A	Lab Control Sample Dup	Total/NA	Water	1613B	706202

### **General Chemistry**

#### **Prep Batch: 797647**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	<b>Prep Batch</b>
400-242687-1	DSN004 STORM POND	Total/NA	Water	Carbon Trap	
MB 680-797647/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-797647/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	

#### Analysis Batch: 797814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242687-1	DSN004 STORM POND	Total/NA	Water	1650 Rev. C	797647
MB 680-797647/1-A	Method Blank	Total/NA	Water	1650 Rev. C	797647
LCS 680-797647/2-A	Lab Control Sample	Total/NA	Water	1650 Rev. C	797647

### QC Sample Results

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242687-1 SDG: Form 2F Table B

#### ethod: 624.1 - Volatile Organic Compounds (GC/MS)

MB MB

Lab Sample ID: MB 400-640185/5

**Matrix: Water** 

Analysis Batch: 640185

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte Result Qualifier RL MDL Unit Prepared **Dil Fac** Analyzed Chloroform <0.00090 0.0010 0.00090 mg/L 09/08/23 09:09

MB MB Surrogate %Recovery Qualifier Limits Prepared Dil Fac Analyzed 4-Bromofluorobenzene 84 78 - 118 09/08/23 09:09 Dibromofluoromethane 105 81 - 121 09/08/23 09:09 Toluene-d8 (Surr) 96 80 - 120 09/08/23 09:09

Lab Sample ID: LCS 400-640185/3

**Matrix: Water** 

Analysis Batch: 640185

Spike LCS LCS %Rec **Analyte** Added Result Qualifier Unit D %Rec Limits Chloroform 0.0500 0.0388 mg/L 78 70 - 135

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 90 78 - 118 Dibromofluoromethane 95 81 - 121 Toluene-d8 (Surr) 98 80 - 120

#### Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-639791/1-A

**Matrix: Water** 

Analysis Batch: 640117

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 639791** 

Prep Type: Total/NA

MR MR **Analyte** Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 2.3.4.6-Tetrachlorophenol 0.010 0.0016 mg/L 09/08/23 00:56 < 0.0016 09/05/23 16:37 0.010 09/05/23 16:37 09/08/23 00:56 2,4,5-Trichlorophenol < 0.0037 0.0037 mg/L 2,4,6-Trichlorophenol < 0.0026 0.010 0.0026 mg/L 09/05/23 16:37 09/08/23 00:56 Pentachlorophenol < 0.0014 0.020 0.0014 mg/L 09/05/23 16:37 09/08/23 00:56

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 2,4,6-Tribromophenol 70 15 - 135 09/05/23 16:37 09/08/23 00:56 83 32 - 109 09/05/23 16:37 09/08/23 00:56 2-Fluorobiphenyl 63 10 - 104 09/05/23 16:37 09/08/23 00:56 2-Fluorophenol 09/05/23 16:37 09/08/23 00:56 Nitrobenzene-d5 7.3 31 - 111 09/05/23 16:37 09/08/23 00:56 Phenol-d5 47 10-110 30 - 129 09/05/23 16:37 09/08/23 00:56 Terphenyl-d14 87

Lab Sample ID: LCS 400-639791/2-A

Matrix: Water

Analysis Batch: 640117

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 639791

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,3,4,6-Tetrachlorophenol	0.120	0.101		mg/L		84	46 - 130	
2,4,5-Trichlorophenol	0.120	0.0915		mg/L		76	55 - 140	
2,4,6-Trichlorophenol	0.120	0.0854		mg/L		71	52 - 129	
Pentachlorophenol	0.240	0.183		mg/L		76	38 - 152	

Client: International Paper Company

~- ject/Site: Riverdale Mill

Job ID: 400-242687-1 SDG: Form 2F Table B

ethod: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	93		15 - 135
2-Fluorobiphenyl	86		32 - 109
2-Fluorophenol	69		10-104
Nitrobenzene-d5	83		31 - 111
Phenol-d5	55		10-110
Terphenyl-d14	88		30 - 129

#### Method: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

Lab Sample ID: MB 320-706 Matrix: Water	202/1-A							le ID: Method Prep Type: To	otal/NA
Analysis Batch: 707850								Prep Batch:	706202
		МВ							
Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.59		10	0.59	pg/L		09/14/23 14:31	09/20/23 21:27	1
2,3,7,8-TCDF	< 0.44		10	0.44	pg/L		09/14/23 14:31	09/20/23 21:27	1
	MB	MB							
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	66		31 - 137				09/14/23 14:31	09/20/23 21:27	1
13C-2,3,7,8-TCDF	63		29 - 140				09/14/23 14:31	09/20/23 21:27	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37CI4-2,3,7,8-TCDD	91		42-164				09/14/23 14:31	09/20/23 21:27	1

Lab Sample ID: LCS 320-7	706202/2-A					Clie	nt Sa	mple ID	: Lab Control Sample
Matrix: Water Analysis Batch: 707850									Prep Type: Total/NA Prep Batch: 706202
			Spike		LCS		_		%Rec
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
2,3,7,8-TCDD			200	198		pg/L		99	73 - 146
2,3,7,8-TCDF			200	212		pg/L		106	80 - 147
	LCS	LCS							
Isotope Dilution	%Recovery	Qualifier	Limits						
13C-2,3,7,8-TCDD	73		25 - 141						
13C-2,3,7,8-TCDF	70		26 - 126						
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
37CI4-2,3,7,8-TCDD	89		37 - 158						

37CI4-2,3,7,8-TCDD	89		37 - 158								
Lab Sample ID: LCSD 3	20-706202/3-A					Client Sa	ample	ID: Lab	Control	Sample	Dup
Matrix: Water Analysis Batch: 707850									Prep Ba		06202
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,3,7,8-TCDD			200	195		pg/L		97	73 - 146	2	50
2,3,7,8-TCDF			200	202		pg/L		101	80 - 147	5	50
	LCSD	LCSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
13C-2,3,7,8-TCDD	72	7,0,1	25 - 141								
13C-2,3,7,8-TCDF	68		26 - 126								

### QC Sample Results

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242687-1

SDG: Form 2F Table B

### ethod: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS (Continued)

Lab Sample ID: LCSD 320-706202/3-A

Client Sample ID: Lab Control Sample Dup

**Matrix: Water** 

Prep Type: Total/NA

Analysis Batch: 707850

Prep Batch: 706202

LCSD LCSD

Surrogate %Recovery Qualifier 89

Limits

37CI4-2,3,7,8-TCDD

37 - 158

#### Method: 1650 Rev. C - Adsorbable Organic Halides (AOX)

Lab Sample ID: MB 680-797647/1-A

Client Sample ID: Method Blank

**Matrix: Water** 

Prep Type: Total/NA

Analysis Batch: 797814

Prep Batch: 797647

MB MB

Analyte Adsorbable Organic Halides

Adsorbable Organic Halides

Result Qualifier < 0.0062

**MDL** Unit 0.0062 mg/L

Prepared 09/12/23 15:03 09/12/23 17:12

92

Analyzed

Dil Fac

Lab Sample ID: LCS 680-797647/2-A

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

**Matrix: Water** Analysis Batch: 797814

RL

0.020

Page 14 of 19

0.100

**Prep Batch: 797647** 

Spike LCS LCS Added Result Qualifier

0.0919

Unit %Rec

mg/L

%Rec Limits

78 - 116

# **Chain of Custody Record**



💸 eurofins

Environment Testing

Client Information	Sample	AC.	PEAD	SON Lab P	mire, Cheye	nne R	1		400-242687 COC	(s):	COC No. 400-122359-41791.1
Client Contact: Carla Pearson	Phone. 334	-418	-523	E-Mail	venne.Whitn	nire@	et eurofi	nsus.co	om ı	AL	Page. Page 1 of 1
company"	1 00 1	110	PWSID.						-		Job#:
International Paper Company Address:	Due Date Request	a de			-41		Ar	alysis	s Requested		Preservation Codes:
501 County Road 78	Due Date Request	ea:			***						M - Hexane
501 County Road 78 Dity: Selma	TAT Requested (d	MICO	1								A - HCL B - NaOH N - None O - AsNaO2
tate, Zip.		424	۲.								C - Zn Acetate P - Na2O4S
AL, 36703 Phone:	Compliance Project	ct: A Yes	Δ No								Q - Na2SO3 R - Na2S2O3 R - Na2S2O3
Phone <sup>.</sup> 334-418-5236(Tel)	PO#: 16969625				ian o						G - Amchior S - H2SO4
Email:	W0#:				No				11111		I - Ascorbic Acid U - Acetone
Carla.Pearson@ipaper.com					Non-Convent						J - DI Water V - MCAA W - pH 4-5
Project Name: Form 2F Table B	Project #: 40016047				Non-		Ž.				L - EDA Y - Trizms
	SSOW#:				ample onal & P		DITO				Other:
RIVERDALE MILL					Sall	E	TCD				- E
			Sample	Matrix	Tven Iven	824.1 - Chloroform	- 2,3,7,8-TCDD/TCDF - AOX	- 1			Other:  Special Instructions/Note:
			Туре	(Wrwster,	Conv	공	-2,3,7				氢
		Sample	(C=comp,	Sweeth, Owneste/oil,	FJöld:	1.4	1613B 1650C				
Sample Identification	Sample Date	Time	G=grab)	BT=Tissue, A=Air)							Special Instructions/Note:
DOLLAND CONTROLL	00000	21110	-			<b>A</b>					
DSN 004 STORM DOND	82923	2.40	G	Water	X						
11	1	1	G	Water		X					
11			6	11		1	X				
	+ +	-	6			-	1				
11		1	6	11			X				
			,								2002
											5 7
		-	-		H +		-	-			
											34
		-	-		-	-	-	-	+		
											<b>R</b>
Possible Hazard Identification					Sample	Disp	osal (A	fee ma	y be assessed if sa	mples are r	etained longer than 1 month)
Non-Hazard Flammable Skin Irritant P	oison B Unk	nown	Radiologica	a/			To Clien		Disposal By Lai		Archive For Months
Deliverable Requested: I, II, III, IV, Other (specify)									uirements:	ten (	
Emply Kit Dalinguithed by		Date:			Time:				Method of S		month, mispore
Empty Kit Relinquished by:	DateCirrle	Date.		Gompasy		numd (A)		- (	7 7	Data/Timb	I Company
Neilinguisited of the New York	Date Firm 30	33 7:	45	17-21E	PAN Becco	ved by	water	tu?	searth lux	83	123 7:45 Supra
Relinquished by:	Date/Time,			Company		rved by		0	4.00	Date/Time	Company
V /								0			
Relinquished by	Date/Time			Company	Pass	ived by		7	7)	Date/Time	.23 11:55 Company

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### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242687-1 SDG Number: Form 2F Table B

List Source: Eurofins Pensacola

Login Number: 242687

List Number: 1

Creator: Roberts, Alexis J

Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td> <td></td>	N/A		
The cooler's custody seal, if present, is intact.	N/A		
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.	True		
Cooler Temperature is acceptable.	True		
Cooler Temperature is recorded.	True	0.3°C IR8	
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.	N/A		
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		



















### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242687-1 SDG Number: Form 2F Table B

Login Number: 242687 List Number: 3 List Creation: 09/01/23 11:47 AM

Creator: Simmons, Jason C

List Creation:	09/01/23	11:47 AM	

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey neter.</td <td>True</td> <td></td>	True	
he cooler's custody seal, if present, is intact.	True	2364666
Sample custody seals, if present, are intact.	N/A	
he cooler or samples do not appear to have been compromised or ampered with.	True	
camples were received on ice.	True	
Cooler Temperature is acceptable.	True	
cooler Temperature is recorded.	True	1.5
COC is present.	True	
OC is filled out in ink and legible.	True	
OC is filled out with all pertinent information.	True	
the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
here are no discrepancies between the containers received and the COC.	True	
camples are received within Holding Time (excluding tests with immediate ITs)	True	
sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
ample collection date/times are provided.	True	
ppropriate sample containers are used.	True	
sample bottles are completely filled.	True	
ample Preservation Venfied.	N/A	
here is sufficient vol. for all requested analyses, incl. any requested IS/MSDs	True	
ontainers requiring zero headspace have no headspace or bubble is 6mm (1/4").	True	
fultiphasic samples are not present.	True	
samples do not require splitting or compositing.	True	
esidual Chlorine Checked.	N/A	

### **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242687-1 SDG: Form 2F Table B

#### aboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	<b>US Federal Programs</b>	A22340	06-30-24
USDA	<b>US Federal Programs</b>	FLGNV23001	01-08-26
USDA	<b>US Federal Programs</b>	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

#### **Laboratory: Eurofins Sacramento**

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-24
Arkansas DEQ	State	88-0691	05-18-24
California	State	2897	01-22-24
Colorado	State	CA0004	08-31-24
Florida	NELAP	E87570	06-30-24
Georgia	State	4040	01-29-24
Hawaii	State	<cert no.=""></cert>	01-29-24
Illinois	NELAP	200060	03-17-24
Kansas	NELAP	E-10375	10-31-23
Louisiana (All)	NELAP	01944	06-30-24
Maine	State	CA00004	04-14-24
Michigan	State	9947	01-31-24
Nevada	State	CA00044	07-31-24
New Hampshire	NELAP	2997	04-18-24
New Jersey	NELAP	CA005	06-30-24
New York	NELAP	11666	04-01-24
Ohio	State	41252	01-29-24
Oregon	NELAP	4040	01-29-24

### **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242687-1 SDG: Form 2F Table B

#### iboratory: Eurofins Sacramento (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	Expiration Date
Texas	NELAP	T104704399-19-13	05-31-24
US Fish & Wildlife	US Federal Programs	58448	04-30-24
USDA	US Federal Programs	P330-18-00239	02-28-26
Utah	NELAP	CA000442021-12	02-29-24
Virginia	NELAP	460278	03-14-24
Washington	State	C581	05-05-24
West Virginia (DW)	State	9930C	12-31-23
Wisconsin	State	998204680	08-31-24
Wyoming	State Program	8TMS-L	01-28-19 *

#### Laboratory: Eurofins Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-24
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Arkansas DEQ	State	19-015-0	02-01-24
California	State	2939	06-30-24
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24
Georgia (DW)	State	803	06-30-24
Guam	State	19-007R	04-17-24
Hawaii	State	<cert no.=""></cert>	06-30-24
Illinois	NELAP	200022	11-30-23
Indiana	State	C-GA-02	06-30-24
lowa	State	353	07-01-25
Kentucky (UST)	State	NA	06-30-24
Louisiana	NELAP	30690	06-30-24
Louisiana (All)	NELAP	30690	06-30-24
Louisiana (DW)	State	LA009	12-31-23
Maine	State	GA00006	09-25-24
Maryland	State	250	12-31-23
Massachusetts	State	M-GA006	06-30-24
Michigan	State	9925	06-30-24
Mississippi	State	<cert no.=""></cert>	06-30-24
Nebraska	State	NE-OS-7-04	06-30-24
New Jersey	NELAP	GA769	06-30-24
New Mexico	State	GA00006	06-30-24
North Carolina (DW)	State	13701	07-31-24
North Carolina (WW/SW)	State	269	09-21-23
Pennsylvania	NELAP	68-00474	06-30-24
Puerto Rico	State	GA00006	01-01-24
South Carolina	State	98001	06-30-23 *
Tennessee	State	TN02961	06-30-24
Texas	NELAP	T1047004185	11-30-23
Texas	TCEQ Water Supply	T104704185	06-30-24
USDA	<b>US Federal Programs</b>	P330-18-00313	09-03-24
Virginia	NELAP	460161	06-14-24
Wyoming	State	8TMS-L	06-30-23 *

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Eurofins Pensacola

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<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

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## 14

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703

Generated 9/25/2023 3:34:49 PM

# JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table B

## **JOB NUMBER**

400-242701-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

Page 1 of 21



# **Eurofins Pensacola**

#### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

#### **Authorization**

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Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

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Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-242701-1 SDG: Form 2F Table B

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able of Contents	3
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#### **Case Narrative**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242701-1 SDG: Form 2F Table B

Job ID: 400-242701-1

Laboratory: Eurofins Pensacola

**Narrative** 

Job Narrative 400-242701-1

#### Receipt

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.5° C.

#### Dioxin

Method 1613B: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD associated with the following samples run on instrument 12D5 exceeded this criteria: DSN005 STORM POND (400-242701-1), (CCV 320-707850/2), (LCS 320-706202/2-A), (LCSD 320-706202/3-A) and (MB 320-706202/1-A). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

Method 1613B: The ending resolution check indicated that the instrument was at slightly less than 10,000 resolution. The samples were evaluated for high mass fragmentation breakthrough and none was found. There is no adverse impact on the data. The following samples are impacted, DSN005 STORM POND (400-242701-1), (CCV 320-707850/2), (LCS 320-706202/2-A), (LCSD 320-706202/3-A), (MB 320-706202/1-A) and (WDM 320-707850/1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## **Detection Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242701-1 SDG: Form 2F Table B

Lab Sample ID: 400-242701-1

### lient Sample ID: DSN005 STORM POND

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Chloroform	0.0027	0.0010	0.00090	mg/L	1	624.1	Total/NA
Adsorbable Organic Halides	0.10	0.020	0.0062	mg/L	1	1650 Rev. C	Total/NA

### **Method Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242701-1 SDG: Form 2F Table B

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Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	EPA	EET PEN
625.1	Semivolatile Organic Compounds (GC/MS)	EPA	EET PEN
1613B	Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS	EPA	EET SAC
1650 Rev. C	Adsorbable Organic Halides (AOX)	EPA	EET SAV
1613B	Separatory Funnel (L/L) Extraction with Soxhlet Extraction of Dioxin and Furans	EPA	EET SAC
625	Liquid-Liquid Extraction	EPA	EET PEN
Carbon Trap	Carbon Trap Preparation	EPA-17	EET SAV

#### **Protocol References:**

EPA = US Environmental Protection Agency

EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colormetric Titration," EPA, February 1992

#### Laboratory References:

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

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# **Sample Summary**

Client: International Paper Company Poject/Site: Riverdale Mill

Job ID: 400-242701-1 SDG: Form 2F Table B

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242701-1	DSN005 STORM POND	Water	08/29/23 14:50	08/30/23 11:55

### **Client Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242701-1

SDG: Form 2F Table B

lient Sample ID: DSN005 STORM POND

Date Collected: 08/29/23 14:50 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242701-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.0027		0.0010	0.00090	mg/L	_	-	09/08/23 11:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	89		78 - 118					09/08/23 11:25	1
Dibromofluoromethane	111		81 - 121					09/08/23 11:25	1
Toluene-d8 (Surr)	97		80 - 120					09/08/23 11:25	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	<0.0015	-	0.0093	0.0015	mg/L		09/05/23 16:37	09/08/23 02:43	1
2,4,5-Trichlorophenol	< 0.0035		0.0093	0.0035	mg/L		09/05/23 16:37	09/08/23 02:43	1
2,4,6-Trichlorophenol	< 0.0024		0.0093	0.0024	mg/L		09/05/23 16:37	09/08/23 02:43	1
Pentachlorophenol	<0.0013		0.019	0.0013	mg/L		09/05/23 16:37	09/08/23 02:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	78		15 - 135				09/05/23 16:37	09/08/23 02:43	1
2-Fluorobiphenyl	91		32 - 109				09/05/23 16:37	09/08/23 02:43	1
2-Fluorophenol	66		10 - 104				09/05/23 16:37	09/08/23 02:43	1

Surrogate	Mecovery W	uaillei Liillis		rrepared	Analyzeu	DIIFac
2,4,6-Tribromophenol	78	15 - 135		09/05/23 16:37	09/08/23 02:43	1
2-Fluorobiphenyl	91	32 - 109		09/05/23 16:37	09/08/23 02:43	1
2-Fluorophenol	66	10 - 104		09/05/23 16:37	09/08/23 02:43	1
Nitrobenzene-d5	82	31 - 111		09/05/23 16:37	09/08/23 02:43	1
Phenol-d5	50	10 - 110		09/05/23 16:37	09/08/23 02:43	1
Terphenyl-d14	105	30 - 129		09/05/23 16:37	09/08/23 02:43	1
	MIS					
Method: EPA 1613B - Te	tra Chlorinated Dio	xins & Furans ID HR	GC/HRMS			
Analyte	Result O	ualifier RI	FDI Unit	D Prepared	Analyzed	Dil Fac

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.46		9.8	0.46	pg/L		09/14/23 14:31	09/21/23 03:49	1
2,3,7,8-TCDF	<0.28		9.8	0.28	pg/L		09/14/23 14:31	09/21/23 03:49	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	77		31 - 137				09/14/23 14:31	09/21/23 03:49	1
13C-2,3,7,8-TCDF	73		29 - 140				09/14/23 14:31	09/21/23 03:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37CI4-2,3,7,8-TCDD	88		42 - 164				09/14/23 14:31	09/21/23 03:49	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Adsorbable Organic Halides (EPA 1650 Rev. C)	0.10		0.020	0.0062	mg/L		09/13/23 16:34	09/13/23 19:11	1

## **Definitions/Glossary**

Client: International Paper Company Job ID: 400-242701-1 Project/Site: Riverdale Mill

SDG: Form 2F Table B

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**Quality Control** 

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

QC

RER

RPD

TEF

TEQ

TNTC

RL

lossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
DI .	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive

9/25/2023

#### Lab Chronicle

Client: International Paper Company

"-oject/Site: Riverdale Mill

Job ID: 400-242701-1

SDG: Form 2F Table B

lient Sample ID: DSN005 STORM POND

Date Collected: 08/29/23 14:50 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242701-1

**Matrix: Water** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	640185	09/08/23 11:25	WPD	EET PEN
Total/NA	Prep	625			267.4 mL	1 mL	639791	09/05/23 16:37	BKL	EET PEN
Total/NA	Analysis	625.1		1	0.4 mL	0.4 mL	640110	09/08/23 02:43	S1B	EET PEN
Total/NA	Prep	1613B			1022.1 mL	20.0 uL	706202	09/14/23 14:31	CGB	EET SAC
Total/NA	Analysis	1613B		1	1 Sample	1 Sample	707850	09/21/23 03:49	DB	EET SAC
Total/NA	Prep	Carbon Trap			100 mL	100 mL	797827	09/13/23 16:34	JLD	EET SAV
Total/NA	Analysis	1650 Rev. C		1			798015	09/13/23 19:11	JLD	EET SAV

**Laboratory References:** 

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

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

### **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242701-1 SDG: Form 2F Table B

#### C/MS VOA

#### Analysis Batch: 640185

Lab Sample ID 400-242701-1	Client Sample ID DSN005 STORM POND	Prep Type Total/NA	Matrix Water	Method 624.1	Prep Batch
MB 400-640185/5	Method Blank	Total/NA	Water	624.1	
LCS 400-640185/3	Lab Control Sample	Total/NA	Water	624.1	

#### GC/MS Semi VOA

#### **Prep Batch: 639791**

Client Sample ID	Prep Type	Matrix	Method	Prep Batch
DSN005 STORM POND	Total/NA	Water	625	
Method Blank	Total/NA	Water	625	
Lab Control Sample	Total/NA	Water	625	
	DSN005 STORM POND Method Blank	DSN005 STORM POND Total/NA Method Blank Total/NA	DSN005 STORM POND Total/NA Water Method Blank Total/NA Water	DSN005 STORM POND Total/NA Water 625 Method Blank Total/NA Water 625



#### Analysis Batch: 640110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242701-1	DSN005 STORM POND	Total/NA	Water	625.1	639791



#### Analysis Batch: 640117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-639791/1-A	Method Blank	Total/NA	Water	625.1	639791
LCS 400-639791/2-A	Lab Control Sample	Total/NA	Water	625.1	639791

### **Specialty Organics**

#### **Prep Batch: 706202**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242701-1	DSN005 STORM POND	Total/NA	Water	1613B	
MB 320-706202/1-A	Method Blank	Total/NA	Water	1613B	
LCS 320-706202/2-A	Lab Control Sample	Total/NA	Water	1613B	
LCSD 320-706202/3-A	Lab Control Sample Dup	Total/NA	Water	1613B	

### Analysis Batch: 707850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242701-1	DSN005 STORM POND	Total/NA	Water	1613B	706202
MB 320-706202/1-A	Method Blank	Total/NA	Water	1613B	706202
LCS 320-706202/2-A	Lab Control Sample	Total/NA	Water	1613B	706202
LCSD 320-706202/3-A	Lab Control Sample Dup	Total/NA	Water	1613B	706202

## **General Chemistry**

#### **Prep Batch: 797827**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242701-1	DSN005 STORM POND	Total/NA	Water	Carbon Trap	
MB 680-797827/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-797827/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
"400-242701-1 MS	DSN005 STORM POND	Total/NA	Water	Carbon Trap	
400-242701-1 MSD	DSN005 STORM POND	Total/NA	Water	Carbon Trap	

#### Analysis Batch: 798015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242701-1	DSN005 STORM POND	Total/NA	Water	1650 Rev. C	797827
MB 680-797827/1-A	Method Blank	Total/NA	Water	1650 Rev. C	797827
LCS 680-797827/2-A	Lab Control Sample	Total/NA	Water	1650 Rev. C	797827

## **QC Association Summary**

Client: International Paper Company
-oject/Site: Riverdale Mill

Job ID: 400-242701-1 SDG: Form 2F Table B

2

eneral Chemistry (Continued)

**Analysis Batch: 798015 (Continued)** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242701-1 MS	DSN005 STORM POND	Total/NA	Water	1650 Rev. C	797827
400-242701-1 MSD	DSN005 STORM POND	Total/NA	Water	1650 Rev. C	797827

4

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6

9

10

13

14

### **QC Sample Results**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242701-1 SDG: Form 2F Table B

### lethod: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-640185/5 Matrix: Water

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 640185

Analyte Chloroform

MB	МВ								
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
< 0.00090		0.0010	0.00090	ma/L			09/08/23 09:09	1	

	MB	МВ				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		78 - 118		09/08/23 09:09	1
Dibromofluoromethane	105		81 - 121		09/08/23 09:09	1
Toluene-d8 (Surr)	96		80 - 120		09/08/23 09:09	1

09/08/23 09:09 1 09/08/23 09:09 1

Lab Sample ID: LCS 400-640185/3 Matrix: Water

Analysis Batch: 640185

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Type:

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloroform	0.0500	0.0388		mg/L		78	70 - 135	

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene
 90
 78 - 118

 Dibromofluoromethane
 95
 81 - 121

 Toluene-d8 (Surr)
 98
 80 - 120

12

### Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-639791/1-A

Matrix: Water

Analysis Batch: 640117

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 639791

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,6-Tetrachlorophenol	<0.0016		0.010	0.0016	mg/L		09/05/23 16:37	09/08/23 00:56	1
2,4,5-Trichlorophenol	<0.0037		0.010	0.0037	mg/L		09/05/23 16:37	09/08/23 00:56	1
2,4,6-Trichlorophenol	<0.0026		0.010	0.0026	mg/L		09/05/23 16:37	09/08/23 00:56	1
Pentachlorophenol	<0.0014		0.020	0.0014	mg/L		09/05/23 16:37	09/08/23 00:56	1
	MB	MB							
Cramomoto	9/ Passayary	Qualifier	Limite				Propored	Anglygad	Dil Fac

	IND IND				
Surrogate	%Recovery Qualifie	r Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	70	15 - 135	09/05/23 16:37	09/08/23 00:56	1
2-Fluorobiphenyl	83	32 - 109	09/05/23 16:37	09/08/23 00:56	1
2-Fluorophenol	63	10 - 104	09/05/23 16:37	09/08/23 00:56	1
Nitrobenzene-d5	73	31 - 111	09/05/23 16:37	09/08/23 00:56	1
Phenol-d5	47	10 - 110	09/05/23 16:37	09/08/23 00:56	1
Terphenyl-d14	87	30 - 129	09/05/23 16:37	09/08/23 00:56	1
A					

Lab Sample ID: LCS 400-639791/2-A Client Sample ID: Lab Control Sample

Matrix: Water
Analysis Batch: 640117
Prep Batch: 639791

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,3,4,6-Tetrachlorophenol	0.120	0.101		mg/L		84	46 - 130	
2,4,5-Trichlorophenol	0.120	0.0915		mg/L		76	55 - 140	
2,4,6-Trichlorophenol	0.120	0.0854		mg/L		71	52 - 129	
Pentachlorophenol	0.240	0.183		mg/L		76	38 - 152	

Client: International Paper Company Project/Site: Riverdale Mill

SDG: Form 2F Table B

Job ID: 400-242701-1

lethod: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

91

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	93		15 - 135
2-Fluorobiphenyl	86		32 - 109
2-Fluorophenol	69		10 - 104
Nitrobenzene-d5	83		31 - 111
Phenoi-d5	55		10 - 110
Terphenyl-d14	88		30 - 129

### Method: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

Client Sample ID: Method Blank Pren Type: Total/NA

Matrix: Water Analysis Batch: 707850								Prep Type: To Prep Batch:	
	MB	MB							
Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.59		10	0.59	pg/L		09/14/23 14:31	09/20/23 21:27	1
2,3,7,8-TCDF	<0.44		10	0.44	pg/L		09/14/23 14:31	09/20/23 21:27	1
	MB	MB							
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	66		31 - 137				09/14/23 14:31	09/20/23 21:27	1
13C-2,3,7,8-TCDF	63		29 - 140				09/14/23 14:31	09/20/23 21:27	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

42-164

#### Lab Sample ID: LCS 320-706202/2-A

Lab Sample ID: MB 320-706202/1-A

Matrix: Water

Analysis Batch: 707850

37CI4-2,3,7,8-TCDD

Client	Sample	ID:	Lab	Control	Sai	mpl	€

09/14/23 14:31 09/20/23 21:27

Prep Type: Total/NA

Prep Batch: 706202

			Spike	LCS	LCS				%Rec	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,3,7,8-TCDD			200	198		pg/L		99	73 - 146	
2,3,7,8-TCDF			200	212		pg/L		106	80 - 147	
	LCS	LCS								
Isotope Dilution	%Recovery	Qualifier	Limits							

13C-2,3,7,8-TCDD	73		25 - 141
13C-2,3,7,8-TCDF	70		26 - 126
	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
37CI4-2 3 7 8-TCDD	89		37 - 158

Lab Sample ID: LCSD 320-706202/3-A Matrix: Water

Analysis Batch: 707850

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 706202

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,3,7,8-TCDD	200	195		pg/L		97	73 - 146	2	50
2,3,7,8-TCDF	200	202		pg/L		101	80 - 147	5	50

	LCSD	LCSD	
Isotope Dilution	%Recovery	Qualifier	Limits
13C-2,3,7,8-TCDD	72		25 - 141
13C-2,3,7,8-TCDF	68		26 - 126

MR MR

Job ID: 400-242701-1 SDG: Form 2F Table B

ethod: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS (Continued)

Lab Sample ID: LCSD 320-706202/3-A

**Matrix: Water** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

LCSD LCSD

%Recovery Qualifier Surrogate 37CI4-2,3,7,8-TCDD 89

Prep Batch: 706202

Method: 1650 Rev. C - Adsorbable Organic Halides (AOX)

Lab Sample ID: MB 680-797827/1-A Client Sample ID: Method Blank

Limits

37 - 158

**Matrix: Water** Analysis Batch: 798015

Analysis Batch: 707850

Prep Type: Total/NA

Prep Batch: 797827

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Adsorbable Organic Halides 0.020 0.0062 mg/L 09/13/23 16:34 09/13/23 18:35

Lab Sample ID: LCS 680-797827/2-A Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA

Analysis Batch: 798015 Prep Batch: 797827 LCS LCS %Rec Spike

Added Limits Result Qualifier Unit %Rec 0.100 mg/L Adsorbable Organic Halides 0.0899 78 - 116

Lab Sample ID: 400-242701-1 MS Client Sample ID: DSN005 STORM POND Prep Type: Total/NA **Matrix: Water** 

Analysis Batch: 798015 Prep Batch: 797827 Sample Sample Spike MS MS %Rec

Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Adsorbable Organic Halides 0.10 1.00 1.03 mg/L 92 78 - 116

Client Sample ID: DSN005 STORM POND Lab Sample ID: 400-242701-1 MSD **Matrix: Water** Prep Type: Total/NA

Prep Batch: 797827 Analysis Batch: 798015 MSD MSD %Rec Sample Sample Spike RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Adsorbable Organic Halides 0.10 1.00 1.03 mg/L 93 78 - 116

3355 McLemore Drive Pensacola, FL 32514

# **Chain of Custody Record**



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Environment Testing

Phone: 850-474-1001 Fax: 850-478-2671									_	-						
Client Information	Sampler CAD	MAC.	PEARS	COH Whit	РМ <sup>.</sup> itmire, Ch	eyenn	e R		400-2	42701 CO	C ig No	o(s)		COC No. 100-122359-41	1791.1	
Cilent Contact Carla Pearson Company	Phone 334	-418	5-52	36 E-Ma Che	il yenne.W	hitmire	e@et.	eurofir	isus.com	1	ungin	AL	- F	Page Page 1 of 1 ob#		
International Paper Company			FWSID					Ar	alysis R	equeste	ed		2	JU #		
Address. 601 County Road 78	Due Date Request	.ed:												Preservation Co	odes: M - Hexane	
City Selma State, Zip	TAT Requested (d	ays):	SAP											B - NaOH C - Zn Acetate D - Nitric Acid	N - None O - AsNaO2 P - Na2O45	S
AL, 36703 Phone.	Compliance Proje	ct: A Yes	Δ Νο											E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2O	
334-418-5236(Tel)	PO #: 16969625				ic	tional								G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dox U - Acetone	decahydrate
Email Carla.Pearson@ipaper com	WO #.				e rigin No)	Non-Conventional								- Ice I - Di Water	V - MCAA W - pH 4-5	
Project Name Form 2F Table B	Project #- 40016047				e (Ne	Non	CDF							K-EDTA L-EDA	Y - Trizma Z - other (sp	pecify)
Site. PAVEDDALE MILL	SSOW#:					fonal &	rcpp/				11		00.00	Other:		
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Wasser, Sacolid, Ownstatell, BT=Tissue, A=Air)	sleld/Fillered	626.1 - Conventional 624.1 - Chloroform	1613B - 2,3,7,8-TCDD/TCDF	1650C - AOX					Total Number	Special	Instructions	s/Note:
	(A) (A)			inor Granz	XX	BA	-	DE		AL 122 5	484			20 T T T T T	====	- CARLEY OF
DSHOOS GIDDEN DOND	82923	2:50	G	Water				W								
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					HH		+		++	1			3.5			
					H		-	$\square$		-	+	4-4				
					HH	-	+	H		++	++					
Possible Hazard Identification					Sam	ple Di.	spos	al (A)	ee may be	e assesse	d if sam	ples are	retained	longer than	1 month)	
	Poison B Unki	nown 🗀	Radiologica	1				Client		Disposal	By Lab		Archive		Months	;
Deliverable Requested: I, II, III, IV, Other (specify)					Spec				Requiren	nents:		Her	Men	10 1 00		
Empty Kit Relinquished by:		Date:	<i>(4, 11)</i>		Time:					Me	thod of Sh	ipment:		114		
Relinquished by	Date Bine 30	23 7	1:45	P-PAVE	PANE	CONTROL OF THE PROPERTY OF THE	ota	du	scal-	ardu	mº	ate/Time.	30 2	37:40	o SATE	PLONB
Relinquished by:	Date/Time.	`		Company	5	Received	3-	8de	wi	1	) 0	ate/Time	130/2	9 455	Company	
Relinquished by	Date/Time			Company	F	Received	Ry.				D	ate/Time			Company	
Custody Seals Intact: Custody Seal No.: 236	6371				C	Cooler Te	empera	ature(s)	C and Other	Remarks:	5.5	20	TR	0		

9/25/2023

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Ver. 06/08/2021



3355 McLemore Drive Pensacola, FL 32514

# **Chain of Custody Record**



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Environment Testing

Phone: 850-474-1001 Fax: 850-478-2671									منتطبا				
Client Information	Sampler CAD	LAC.	PEARS	OH Whit	tmire, Ch	neyenne	e R		400-242701 C	OC ig No(s	)	COC No. 400-122359-4179	1.1
Client Contact: Carla Pearson	Phone 334	-418	-52	36 Che	ii yenne.W	/hitmire	e@et.	eurofinsus	.com	u Ongin	AL	Page Page 1 of 1	
Company International Paper Company			PWSID <sup>-</sup>						sis Request	ed		Job #	
Address. 601 County Road 78	Due Date Request	ted:					T					Preservation Codes	
City	TAT Requested (d	ays):	010								100	A - HCL	M - Hexane N - None
Selma State, Zip		A	SAP									C - Zn Acetate	0 - AsNaO2 P - Na2O4S
AL, 36703	Compliance Proje	ct: A Yes	Δ Νο		18							E - NaHSO4	2 - Na2SO3 R - Na2S2O3
Phone. 334-418-5236(Tel)	PO #: 16969625					ional						G - Amchlor	S - H2SO4
Email	WO #.				UNIO	nven						1 - los	J - Acetone / - MCAA
Carla.Pearson@ipaper com Project Name	Project#				8	သို့						K-EDTA	W - pH 4-5 Y - Trizma
Form 2F Table B	40016047				olect	₩ N	TCD					4	Z - other (specify)
SITE PAVERDALE MILL	SSOW#:					Final Final	CDD					Other:	
Sample Identification	Sample Date	Sample Time		Matrix (W-water, 8-selfd, O-waste/oil, BT-Tissue, A-Air)		625.1 - Convent 624.1 - Chlorofo	1613B	1650C - AOX				Special Inst	ructions/Note:
DALLONG GODIA DOLLA	0 00 00	2.60		gior (Argeira)	XX	V. (1)	20						
DSHOOS STOPEN POND	82923	2:50	9	Water	HH	V	-	M					
11	16	11	B	Water		X	_						
( )	11	11	6	4			X						
()	11	16	6	11		V							
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					H	+	+				4	ianp	11.0
			-		HH	_	+				3.0	5	
						_	-						
												i	
Possible Hazard Identification					Sam	ple Dis	spos	al (A fee	may be assess	ed if sampl		ned longer than 1 m	
Non-Hazard Flammable Skin Irritant  Deliverable Requested: I, II, III, IV, Other (specify)	Poison B Unk	nown	Radiologica	ol .		Retu			Disposi			chive For	Months
						ciai ilisi	uucu	JIIS/QC NE				owth, ouspo	2
Empty Kit Relinquished by:		Date:			Time:			_	- ad	Method of Shipi		, ,	•
Relinquished by	Date 20 30	23 7	:45	IP-PHUE	PONLE	Received	MA	MILY	alter to	UKA. Date	6 30	23 7:45	STELCHB
Relinquished by	Date/Time:			Company		Received		A)	1	Date	8/30/	23 455	ompany
Relinquished by	Date/Time			Company	-	Received	Dy.	Cour			Time		Company
Out to the test of						Danks T			d Other President				
Custody Seals Intact: Custody Seal No.: 236	6371				(	Jooler Te	empera	ture(s) *C ar	d Other Remarks	5.5	CIL	e10	

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### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242701-1 SDG Number: Form 2F Table B

List Source: Eurofins Pensacola

Login Number: 242701 List Number: 1

Creator: Roberts, Alexis J

Outsetles	A 20110-	Comment
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5°C IR10
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested	True	

True

True

True

N/A

7

4

5

6

8

9

12

13



MS/MSDs

<6mm (1/4").

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

Containers requiring zero headspace have no headspace or bubble is

### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242701-1 SDG Number: Form 2F Table B

Login Number: 242701 List Number: 3 List Source: Eurofins Sacramento

Creator: Simmons, Jason C

List	Creation:	09/01/23	11:47	AM

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	2364666
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5
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?	N/A	Received project as a subcontract.
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.	N/A	
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	

## **Accreditation/Certification Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242701-1 SDG: Form 2F Table B

#### aboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
labama	State	40150	06-30-24
NAB	ISO/IEC 17025	L2471	02-22-26
rkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
lorida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
linois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
ouisiana (All)	NELAP	30976	06-30-24
ouisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
orth Carolina (WW/SW)	State	314	12-31-23
klahoma	NELAP	9810	12-31-23
ennsylvania	NELAP	68-00467	01-31-24
outh Carolina	State	96026	06-30-24
ennessee	State	TN02907	06-30-24
exas	NELAP	T104704286	09-30-23
JS Fish & Wildlife	US Federal Programs	A22340	06-30-24
ISDA	US Federal Programs	FLGNV23001	01-08-26
SDA	US Federal Programs	P330-21-00056	05-17-24
îrginia	NELAP	460166	06-14-24
Vest Virginia DEP	State	136	03-31-24

#### **Laboratory: Eurofins Sacramento**

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-24
Arkansas DEQ	State	88-0691	05-18-24
California	State	2897	01-22-24
Colorado	State	CA0004	08-31-24
Florida	NELAP	E87570	06-30-24
Georgia	State	4040	01-29-24
Hawaii	State	<cert no.=""></cert>	01-29-24
Illinois	NELAP	200060	03-17-24
Kansas	NELAP	E-10375	10-31-23
Louisiana (All)	NELAP	01944	06-30-24
Maine	State	CA00004	04-14-24
Michigan	State	9947	01-31-24
Nevada	State	CA00044	07-31-24
New Hampshire	NELAP	2997	04-18-24
New Jersey	NELAP	CA005	06-30-24
New York	NELAP	11666	04-01-24
Ohio	State	41252	01-29-24
Oregon	NELAP	4040	01-29-24

### **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242701-1 SDG: Form 2F Table B

#### aboratory: Eurofins Sacramento (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date	
Texas	NELAP	T104704399-19-13	05-31-24	
US Fish & Wildlife	US Federal Programs	58448	04-30-24	
USDA	US Federal Programs	P330-18-00239	02-28-26	
Utah	NELAP	CA000442021-12	02-29-24	
Virginia	NELAP	460278	03-14-24	
Washington	State	C581	05-05-24	
West Virginia (DW)	State	9930C	12-31-23	
Wisconsin	State	998204680	08-31-24	
Wyoming	State Program	8TMS-L	01-28-19 *	

### Laboratory: Eurofins Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-24
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Arkansas DEQ	State	19-015-0	02-01-24
California	State	2939	06-30-24
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24
Georgia (DW)	State	803	06-30-24
Guam	State	19-007R	04-17-24
Hawaii	State	<cert no.=""></cert>	06-30-24
llinois	NELAP	200022	11-30-23
Indiana	State	C-GA-02	06-30-24
owa	State	353	07-01-25
Kentucky (UST)	State	NA	06-30-24
Louisiana	NELAP	30690	06-30-24
Louisiana (All)	NELAP	30690	06-30-24
Louisiana (DW)	State	LA009	12-31-23
Maine	State	GA00006	09-25-24
Maryland	State	250	12-31-23
Massachusetts	State	M-GA006	06-30-24
Michigan	State	9925	06-30-24
Mississippi	State	<cert no.=""></cert>	06-30-24
Nebraska	State	NE-OS-7-04	06-30-24
New Jersey	NELAP	GA769	06-30-24
New Mexico	State	GA00006	06-30-24
North Carolina (DW)	State	13701	07-31-24
North Carolina (WW/SW)	State	269	09-21-23
Pennsylvania	NELAP	68-00474	06-30-24
Puerto Rico	State	GA00006	01-01-24
South Carolina	State	98001	06-30-23 *
Tennessee	State	TN02961	06-30-24
Texas	NELAP	T1047004185	11-30-23
Texas	TCEQ Water Supply	T104704185	06-30-24
USDA	US Federal Programs	P330-18-00313	09-03-24
Virginia	NELAP	460161	06-14-24
Wyoming	State	8TMS-L	06-30-23 *

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Eurofins Pensacola

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<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

# **ANALYTICAL REPORT**

## PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703 Generated 9/25/2023 3:34:19 PM

### JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table B

## **JOB NUMBER**

400-242688-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514



# **Eurofins Pensacola**

### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

#### **Authorization**

Generated 9/25/2023 3:34:19 PM

Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-242688-1 SDG: Form 2F Table B

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#### Case Narrative

Client: International Paper Company roject/Site: Riverdale Mill

Job ID: 400-242688-1 SDG: Form 2F Table B

Job ID: 400-242688-1

Laboratory: Eurofins Pensacola

**Narrative** 

**Job Narrative** 400-242688-1

Receipt

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.6° C.

Method 1613B: EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD associated with the following samples run on instrument 12D5 exceeded this criteria: DSN006 STORM POND (400-242688-1), (CCV 320-707850/2), (LCS 320-706202/2-A), (LCSD 320-706202/3-A) and (MB 320-706202/1-A). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

Method 1613B: The ending resolution check indicated that the instrument was at slightly less than 10,000 resolution. The samples were evaluated for high mass fragmentation breakthrough and none was found. There is no adverse impact on the data. The following samples are impacted. DSN006 STORM POND (400-242688-1), (CCV 320-707850/2), (LCS 320-706202/2-A), (LCSD 320-706202/3-A), (MB 320-706202/1-A) and (WDM 320-707850/1)

**General Chemistry** 

Method 1650 Rev. C: Breakthrough exceeded 25% for the following sample: DSN006 STORM POND (400-242688-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# **Detection Summary**

Client: International Paper Company Poject/Site: Riverdale Mill

Job ID: 400-242688-1 SDG: Form 2F Table B

3 2

lient Sample ID: DSN006 STORM POND

Lab Sample ID: 400-242688-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Adsorbable Organic Halides	0.079		0.020	0.0062	mg/L	1		1650 Rev. C	Total/NA

4

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## **Method Summary**

Client: International Paper Company

Job ID: 400-242688-1 SDG: Form 2F Table B

**EET SAV** 

Protocol

EPA

**EPA** 

**EPA** 

**EPA** 

**EPA** 

**EPA** 

EPA-17

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Laboratory	
EET PEN	
EET PEN	
EET SAC	
EET SAV	L
EET SAC	
EET PEN	

#### **Protocol References:**

Method

624.1 625.1

1613B

1613B

625

1650 Rev. C

Carbon Trap

EPA = US Environmental Protection Agency

**Method Description** 

Liquid-Liquid Extraction

Carbon Trap Preparation

Volatile Organic Compounds (GC/MS)

Adsorbable Organic Halides (AOX)

Semivolatile Organic Compounds (GC/MS)

Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colormetric Titration," EPA, February 1992

#### **Laboratory References:**

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

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Separatory Funnel (L/L) Extraction with Soxhlet Extraction of Dioxin and Furans

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# **Sample Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242688-1 SDG: Form 2F Table B

Lab Sample ID 400-242688-1

Client Sample ID DSN006 STORM POND Matrix Water

Received Collected 08/29/23 15:10 08/30/23 11:55

# **Client Sample Results**

Client: International Paper Company "-oject/Site: Riverdale Mill

Job ID: 400-242688-1 SDG: Form 2F Table B

Analyzed

Lab Sample ID: 400-242688-1 **Matrix: Water** 

Dil Fac

lient Sample ID: DSN006 STORM POND

Method: EPA 625.1 - Semivolatile Organic Compounds (GC/MS)

Result Qualifier

<0.0015

Date Collected: 08/29/23 15:10 Date Received: 08/30/23 11:55

Analyte

1650 Rev. C)

2,3,4,6-Tetrachlorophenol

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.00090		0.0010	0.00090	mg/L			09/08/23 11:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	84		78 - 118					09/08/23 11:05	1
D'1	107		81 - 121					09/08/23 11:05	4
Dibromofluoromethane	107		01-121					09/00/23 11.03	,

**MDL** Unit

0.0015 mg/L

Prepared

09/05/23 16:37 09/08/23 02:22

2,4,5-Trichlorophenol	<0.0035	0.0094	0.0035 mg/L	09/05/23 16:37	09/08/23 02:22	1
2,4,6-Trichlorophenol	<0.0024	0.0094	0.0024 mg/L	09/05/23 16:37	09/08/23 02:22	1
Pentachlorophenol	<0.0013	0.019	0.0013 mg/L	09/05/23 16:37	09/08/23 02:22	1
Surrogate	%Recovery Qualifier	Limits		Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	77	15 - 135		09/05/23 16:37	09/08/23 02:22	1
2-Fluorobiphenyl	89	32 - 109		09/05/23 16:37	09/08/23 02:22	1
2-Fluorophenol	62	10-104		09/05/23 16:37	09/08/23 02:22	. 1
Nitrobenzene-d5	83	31 - 111		09/05/23 16:37	09/08/23 02:22	1
Phenol-d5	46	10 - 110		09/05/23 16:37	09/08/23 02:22	1
Terphenyl-d14	108	30 - 129		09/05/23 16:37	09/08/23 02:22	1

0.0094

Method: EPA 1613B - Tetra Ch	Iorinated D	ioxins & F	urans ID HR	GC/HRN	S				
Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	< 0.54		9.7	0.54	pg/L		09/14/23 14:31	09/21/23 03:01	1
2,3,7,8-TCDF	<0.26		9.7	0.26	pg/L		09/14/23 14:31	09/21/23 03:01	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	75		31 - 137				09/14/23 14:31	09/21/23 03:01	1
13C-2,3,7,8-TCDF	73		29 - 140				09/14/23 14:31	09/21/23 03:01	. 1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37CI4-2,3,7,8-TCDD	90		42 - 164				09/14/23 14:31	09/21/23 03:01	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Adsorbable Organic Halides (EPA	0.079		0.020	0.0062	ma/L		09/13/23 16:34	09/13/23 21:16	1

# **Definitions/Glossary**

Client: International Paper Company Job ID: 4 P-oject/Site: Riverdale Mill SDG: Forr

100-242688-1	
m 2F Table B	2

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-	O	s	S	а	п	w
	•	•	•	•		7
					_	_

lossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
a	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)

MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated

ND	Not Detected at the reporting limit (or N	IDL or EDL if shown

NEG	Negative / Absent
POS	Positive / Present
	Described to the Party

PQL	Practical Quantitation L	imit

PRES	Presumptive
QC	Quality Control

RER	Relative Error Ratio (Radiochemist	her
KEK	Relative Elloi Ratio (Radiociellis	UV

RL	Reporting Limit or Requested Limi	t (Radiochemistry)
----	-----------------------------------	--------------------

Relative Percent Difference, a measure of the relative difference between two points **RPD** 

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

### Lab Chronicle

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242688-1 SDG: Form 2F Table B

Lab Sample ID: 400-242688-1

**Matrix: Water** 

lient Sample ID: DSN006 STORM POND

Date Collected: 08/29/23 15:10 Date Received: 08/30/23 11:55

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	640185	09/08/23 11:05	WPD	EET PEN
Total/NA	Prep	625			265.8 mL	1 mL	639791	09/05/23 16:37	BKL	EET PEN
Total/NA	Analysis	625.1		1	0.4 mL	0.4 mL	640110	09/08/23 02:22	S1B	EET PEN
Total/NA	Prep	1613B			1032.5 mL	20.0 uL	706202	09/14/23 14:31	CGB	EET SAC
Total/NA	Analysis	1613B		1	1 Sample	1 Sample	707850	09/21/23 03:01	DB	EET SAC
Total/NA	Prep	Carbon Trap			100 mL	100 mL	797827	09/13/23 16:34	JLD	EET SAV
Total/NA	Analysis	1650 Rev. C		1			798015	09/13/23 21:16	JLD	EET SAV

**Laboratory References:** 

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

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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# **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242688-1 SDG: Form 2F Table B

## C/MS VOA

Analysis I	Batch:	640185
------------	--------	--------

<b>Lab Sample ID</b> 400-242688-1	Client Sample ID DSN006 STORM POND	Prep Type Total/NA	Matrix Water	Method 624.1	Prep Batch
MB 400-640185/5	Method Blank	Total/NA	Water	624.1	
LCS 400-640185/3	Lab Control Sample	Total/NA	Water	624.1	

### GC/MS Semi VOA

### **Prep Batch: 639791**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242688-1	DSN006 STORM POND	Total/NA	Water	625	
MB 400-639791/1-A	Method Blank	Total/NA	Water	625	
LCS 400-639791/2-A	Lab Control Sample	Total/NA	Water	625	



### Analysis Batch: 640110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242688-1	DSN006 STORM POND	Total/NA	Water	625.1	639791

### Analysis Batch: 640117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-639791/1-A	Method Blank	Total/NA	Water	625.1	639791
LCS 400-639791/2-A	Lab Control Sample	Total/NA	Water	625.1	639791

## **Specialty Organics**

### **Prep Batch: 706202**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242688-1	DSN006 STORM POND	Total/NA	Water	1613B	
MB 320-706202/1-A	Method Blank	Total/NA	Water	1613B	
LCS 320-706202/2-A	Lab Control Sample	Total/NA	Water	1613B	
LCSD 320-706202/3-A	Lab Control Sample Dup	Total/NA	Water	1613B	

### Analysis Batch: 707850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242688-1	DSN006 STORM POND	Total/NA	Water	1613B	706202
MB 320-706202/1-A	Method Blank	Total/NA	Water	1613B	706202
LCS 320-706202/2-A	Lab Control Sample	Total/NA	Water	1613B	706202
LCSD 320-706202/3-A	Lab Control Sample Dup	Total/NA	Water	1613B	706202

# **General Chemistry**

#### **Prep Batch: 797827**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242688-1	DSN006 STORM POND	Total/NA	Water	Carbon Trap	
MB 680-797827/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-797827/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	

### Analysis Batch: 798015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242688-1	DSN006 STORM POND	Total/NA	Water	1650 Rev. C	797827
MB 680-797827/1-A	Method Blank	Total/NA	Water	1650 Rev. C	797827
LCS 680-797827/2-A	Lab Control Sample	Total/NA	Water	1650 Rev. C	797827

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### QC Sample Results

Client: International Paper Company pject/Site: Riverdale Mill

Job ID: 400-242688-1 SDG: Form 2F Table B

ethod: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-640185/5 Client Sample ID: Method Blank Matrix: Water Prep Type: Total/NA

Analysis Batch: 640185

	MR	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	<0.00090		0.0010	0.00090	mg/L			09/08/23 09:09	1

MB MB Surrogate %Recovery Qualifier Limits Analyzed Dil Fac Prepared 4-Bromofluorobenzene 78 - 118 84 09/08/23 09:09 Dibromofluoromethane 105 81 - 121 09/08/23 09:09 1 Toluene-d8 (Surr) 96 80 - 120 09/08/23 09:09

Lab Sample ID: LCS 400-640185/3 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Analysis Batch: 640185

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit %Rec Limits

Chloroform 0.0500 0.0388 mg/L 78 70-135

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene 90 78 - 118 Dibromofluoromethane 95 81 - 121 Toluene-d8 (Surr) 98 80 - 120

### Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-639791/1-A Client Sample ID: Method Blank Matrix: Water Prep Type: Total/NA **Prep Batch: 639791** Analysis Batch: 640117

MB MB MDL Unit Result Qualifier RL Prepared Analyzed Analyte 0.010 0.0016 mg/L 09/05/23 16:37 09/08/23 00:56 2,3,4,6-Tetrachlorophenol < 0.0016 09/05/23 16:37 09/08/23 00:56 < 0.0037 0.010 0.0037 mg/L 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol < 0.0026 0.010 0.0026 mg/L 09/05/23 16:37 09/08/23 00:56 < 0.0014 0.020 0.0014 mg/L 09/05/23 16:37 09/08/23 00:56 Pentachlorophenol

MB MB Qualifier Limits Prepared Analyzed Dil Fac Surrogate %Recovery 15 - 135 09/05/23 16:37 09/08/23 00:56 2,4,6-Tribromophenol 70 83 32 - 109 09/05/23 16:37 09/08/23 00:56 2-Fluorobiphenyl 10-104 09/05/23 16:37 09/08/23 00:56 63 2-Fluorophenol 09/05/23 16:37 09/08/23 00:56 Nitrobenzene-d5 73 31 - 111 47 10-110 09/05/23 16:37 09/08/23 00:56 Phenol-d5 09/05/23 16:37 09/08/23 00:56 87 30 - 129 Terphenyl-d14

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 400-639791/2-A Prep Type: Total/NA

**Matrix: Water Prep Batch: 639791** Analysis Batch: 640117

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
2,3,4,6-Tetrachlorophenol	0.120	0.101		mg/L		84	46 - 130	
2,4,5-Trichlorophenol	0.120	0.0915		mg/L		76	55 - 140	
2,4,6-Trichlorophenol	0.120	0.0854		mg/L		71	52 - 129	
Pentachlorophenol	0.240	0.183		mg/L		76	38 - 152	

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9/25/2023

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242688-1 SDG: Form 2F Table B

lethod: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

	LCS		
Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol	93		15 - 135
2-Fluorobiphenyl	86		32 - 109
2-Fluorophenol	69		10 - 104
Nitrobenzene-d5	83		31 - 111
Phenol-d5	55		10-110
Terphenyl-d14	88		30 - 129

### Method: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

Lab Sample ID: MB 320-706 Matrix: Water Analysis Batch: 707850	6202/1-A							le ID: Method Prep Type: To Prep Batch:	otal/NA
STATE OF THE STATE	MB	MB							
Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	<0.59		10	0.59	pg/L		09/14/23 14:31	09/20/23 21:27	1
2,3,7,8-TCDF	< 0.44		10	0.44	pg/L		09/14/23 14:31	09/20/23 21:27	1
	MB	MB							
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	66		31 - 137				09/14/23 14:31	09/20/23 21:27	1
13C-2,3,7,8-TCDF	63		29 - 140				09/14/23 14:31	09/20/23 21:27	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
27CM_2 2 7 R_TCDD	01		12 161				00/44/22 44-24	00/20/22 24:27	4

37CI4-2,3,7,8-TCDD		91	42 - 164				09/1	14/23 14:31	1 09/20/23 21:27 1
Lab Sample ID: LCS 320-	706202/2-A					Clier	nt Sa	mple ID:	Lab Control Sample
Matrix: Water									Prep Type: Total/NA
Analysis Batch: 707850			Spike	100	LCS				Prep Batch: 706202 %Rec
Analyte			Added		Qualifier	Unit	D	%Rec	Limits
2,3,7,8-TCDD			200	198		pg/L	_	99	73 - 146
2,3,7,8-TCDF			200	212		pg/L		106	80 - 147
	LCS	LCS							
Isotope Dilution	%Recovery	Qualifier	Limits						
13C-2,3,7,8-TCDD	73		25-141						
13C-2,3,7,8-TCDF	70		26 - 126						
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
37CI4-2,3,7,8-TCDD	89		37 - 158						

Lab Sample ID: LCSD 320 Matrix: Water Analysis Batch: 707850	)-706202/3-A				(	Client Sa	ample	ID: Lak	Prep Ty Prep Ba	pe: Tot	al/NA
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,3,7,8-TCDD			200	195		pg/L		97	73 - 146	2	50
2,3,7,8-TCDF			200	202		pg/L		101	80 - 147	5	50
	LCSD	LCSD									
Isotope Dilution	%Recovery	Qualifier	Limits								
13C-2,3,7,8-TCDD	72		25 - 141								
13C-2 3 7 8-TCDF	68		26 - 126								

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## QC Sample Results

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242688-1 SDG: Form 2F Table B

ethod: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS (Continued)

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 320-706202/3-A **Matrix: Water** 

Analysis Batch: 707850

Prep Type: Total/NA

LCSD LCSD

Prep Batch: 706202

Surrogate 37CI4-2,3,7,8-TCDD %Recovery Qualifier 89

Limits 37 - 158

Method: 1650 Rev. C - Adsorbable Organic Halides (AOX)

Lab Sample ID: MB 680-797827/1-A Client Sample ID: Method Blank

**Matrix: Water** Analysis Batch: 798015

Analyte

Result Qualifier

Prep Type: Total/NA

**Prep Batch: 797827** 

MB MB

Prepared Analyzed

RL Adsorbable Organic Halides < 0.0062 0.020 0.0062 mg/L 09/13/23 16:34 09/13/23 18:35

**MDL** Unit

Lab Sample ID: LCS 680-797827/2-A Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA

Analysis Batch: 798015 **Prep Batch: 797827** Spike LCS LCS %Rec

Added Result Qualifier Unit %Rec Limits Adsorbable Organic Halides 0.100 0.0899 78 - 116 mg/L

### **Eurofins Pensacola**

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

# **Chain of Custody Record**



eurofins

**Environment Testing** 

Client Information	Sample APL Phone 334	AC.	PEARS	M Lab P Whit	mire, Chey	enne/	R	40	0-242688 COC	acking No	(s)	COC No 400-121857-41791.1
Cilent Contact: Carla Pearson	Phone 334	-418	-523	E-Mai Chey	yenne.Whi	tmire(	@et.eu	ırofinsu	s.com	Origin.		Page Page 1 of 1
Company International Paper Company			PWSID					Analy	sis Reques	ted		Job #
Address 601 County Road 78	Due Date Request	ed:					П				TI	Preservation Codes:
City	TAT Requested (da	ays):	DCA	51				1				A - HCL N - None B - NaOH O - AsNaO2
Selma State, Zip			1101	r .								D - Nitric Acid P - Na2O4S
AL, 36703 Phone.	Compliance Project	t: A Yes	ΔNo									E - NaHSO4 R - Na2S2O3
334-418-5236(Tel)	16969625				o)						4-11	G - Amchor H - Ascorbic Acid L - Acetone
Email. Carla.Pearson@ipaper.com	WO#				plei(YesiphNo) S							I - 100 V - MCAA
Project Name Form 2F Table B	Project # 40016047				(Yes		Ä.					K - EDTA Y - Trizma L - EDA Z - other (specify)
RIVERDALE MILL	SSOW#				diSamplet (Yestonio) Will strong Non-Conventi	E	1613B - 2,3,7,8-TCDD/TCDF					K - EDTA W - pH 4-5 Y - Trizma Z - other (specify)  Other:  Special Instructions/Note:
			Sample	Matrix		orofor	,7,8-T	×				Neg .
	- 1		Туре	(W=water, S=wolld,	Ellter.	Ch	3 - 2,3	1650C - AOX				
Sample Identification	Sample Date	Sample Time	(C=comp, G=grab)	O-wastn/oil, BT=Tissue, A=Air)	FJeldir 625.1 -	624.1 -	16138	16500				Special Instructions/Note:
			Preserve	IO KOOO	XXV	A	N/	涅迦	电算量		1 美 1	
DSMOOLD STOPPY POND	02923	3:10	G	Water	V	1						
()	11	11	9	11		M	6					3
11	11	11	9	(		1	X					
11	11	11	G	11			1	X				2
							1					
								+				
							$\vdash$					
Possible Hazard Identification					Sampl	e Dis	posal	( A fee	may be asses	sed if same	les are n	Sained longer than 1 month)
Non-Hazard Flammable Skin Imtant Po	son B Unkn	own 🗀	Radiologica	1		Retun	n To C	lient	Dispos	sal By Lab	T.	Archive For Months
Deliverable Requested: I, II, III, IV, Other (specify)					Specia	Instr	uction	s/QC R	equirements.	Af	erl	month, dispose
Empty Kit Relinquished by		Date.			Time:				- 0	Method of Ship	ment	137 132
Relinquished & All WSON	Date 1 30 2	37	45	IP-PIVE	PDALE	eived!	ist	5ty	earth	MAN Da	6 S	0 23 7:45 Sin a
Relinquished by:	Date/Time·			Company	Rec	eived t	by.	D	6		te/Time 5.30	
Relinquished by	Date/Time			Company	Rec	eived t	by-	6		Da	te/Time	Company
Custody Seals Intact: Custody Seal No.: 72211	na				Cnn	ler Ter	nperatu	e(s) °C a	nd Other Remarks		_	1
Δ Yes Δ No 2006	UU							1-1			0,	6 TR8





















## **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242688-1

SDG Number: Form 2F Table B

Login Number: 242688 List Source: Eurofins Pensacola

List Number: 1

Creator: Roberts, Alexis J

Orditor: Nobelto, Alexid V		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	COC not relinquished.
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.	N/A	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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## **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242688-1 SDG Number: Form 2F Table B

SDG Number: Form 2F Table B

List Source: Eurofins Sacramento List Creation: 09/01/23 11:47 AM

List Number: 3
Creator: Simmons, Jason C
Ownetten

Login Number: 242688

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	2364666
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5
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?	N/A	Received project as a subcontract.
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.	N/A	
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	

N/A

Samples do not require splitting or compositing.

Residual Chlorine Checked.

# **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill SDG: Fo

Job ID: 400-242688-1 SDG: Form 2F Table B

### aboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

### **Laboratory: Eurofins Sacramento**

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-24
ANAB	ISO/IEC 17025	L2468	01-20-24
Arizona	State	AZ0708	08-11-24
Arkansas DEQ	State	88-0691	05-18-24
California	State	2897	01-22-24
Colorado	State	CA0004	08-31-24
Florida	NELAP	E87570	06-30-24
Georgia	State	4040	01-29-24
Hawaii	State	<cert no.=""></cert>	01-29-24
Illinois	NELAP	200060	03-17-24
Kansas	NELAP	E-10375	10-31-23
Louisiana (All)	NELAP	01944	06-30-24
Maine	State	CA00004	04-14-24
Michigan	State	9947	01-31-24
Nevada	State	CA00044	07-31-24
New Hampshire	NELAP	2997	04-18-24
New Jersey	NELAP	CA005	06-30-24
New York	NELAP	11666	04-01-24
Ohio	State	41252	01-29-24
Oregon	NELAP	4040	01-29-24

Eurofins Pensacola

# **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242688-1 SDG: Form 2F Table B

### aboratory: Eurofins Sacramento (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	Expiration Date	
Texas	NELAP	T104704399-19-13	05-31-24	
US Fish & Wildlife	US Federal Programs	58448	04-30-24	
USDA	US Federal Programs	P330-18-00239	02-28-26	
Utah	NELAP	CA000442021-12	02-29-24	
Virginia	NELAP	460278	03-14-24	
Washington	State	C581	05-05-24	
West Virginia (DW)	State	9930C	12-31-23	
Wisconsin	State	998204680	08-31-24	
Wyoming	State Program	8TMS-L	01-28-19 *	

### Laboratory: Eurofins Savannah

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-24
ANAB	Dept. of Defense ELAP	L2463	09-22-24
Arkansas DEQ	State	19-015-0	02-01-24
California	State	2939	06-30-24
Florida	NELAP	E87052	06-30-24
Georgia	State	E87052	06-30-24
Georgia (DW)	State	803	06-30-24
Guam	State	19-007R	04-17-24
Hawaii	State	<cert no.=""></cert>	06-30-24
Illinois	NELAP	200022	11-30-23
Indiana	State	C-GA-02	06-30-24
lowa	State	353	07-01-25
Kentucky (UST)	State	NA	06-30-24
Louisiana	NELAP	30690	06-30-24
Louisiana (All)	NELAP	30690	06-30-24
Louisiana (DW)	State	LA009	12-31-23
Maine	State	GA00006	09-25-24
Maryland	State	250	12-31-23
Massachusetts	State	M-GA006	06-30-24
Michigan	State	9925	06-30-24
Mississippi	State	<cert no.=""></cert>	06-30-24
Nebraska	State	NE-OS-7-04	06-30-24
New Jersey	NELAP	GA769	06-30-24
New Mexico	State	GA00006	06-30-24
North Carolina (DW)	State	13701	07-31-24
North Carolina (WW/SW)	State	269	09-21-23
Pennsylvania	NELAP	68-00474	06-30-24
Puerto Rico	State	GA00006	01-01-24
South Carolina	State	98001	06-30-23 *
Tennessee	State	TN02961	06-30-24
Texas	NELAP	T1047004185	11-30-23
Texas	TCEQ Water Supply	T104704185	06-30-24
USDA	US Federal Programs	P330-18-00313	09-03-24
Virginia	NELAP	460161	06-14-24
Wyoming	State	8TMS-L	06-30-23 *

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Eurofins Pensacola

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<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

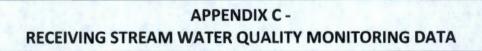


Table C-1
Summary of Receiving Stream Water Quality Monitoring Data
International Paper - Riverdale, AL Mill

Date		M	onitoring L	ocations Ala	bama Rive	r Mile (ARN	1)	
Date	ARM 221.4	ARM 219	ARM 216	ARM 212	ARM 208	ARM 204	ARM 200	ARM 196
6/19/2018	8.6	8.4	8.4	8.6	8.7	8.9	8.8	8.9
6/20/2018	8	7.8	8.2	8.4	8.2	8.8	9.3	8.4
6/26/2018	8	8	8.2	9.5	8.6	10.1	7.1	8.6
6/27/2018	7.5	7.4	7.5	7.6	7.6	8	8	7.9
7/11/2018	8	8.1	8.2	6.8	8.2	8.5	8.3	8.1
7/12/2018	7.3	7.5	8.1	7.7	7	8.2	6.5	7.9
8/27/2018	8	7.1	6.9	7.4	7.7	12.2	8.7	6.7
8/30/2018	8	7.9	7	8.6	7.9	8.8	8.2	8.4
9/4/2018	7.1	7	7.4	7.7	8.2	8	*	*
9/6/2018	6.4	6.6	6.8	6.1	6.6	7.2	6.7	6.7
9/10/2018	6.3	6.2	6.1	6.3	6.9	6.9	7	6.5
9/11/2018	7	7.7	7.1	7.4	7.7	6.1	8.2	6.5
9/17/2018	*	*	*	*	*	*	*	*
9/18/2018	7.1	7.8	8.2	7.5	8	6.9	7.3	6.7
9/24/2018	*	*	*	6.6	7.8	7.7	*	*
9/25/2018	6.4	6	5.9	6.3	5.9	6.4	7	6.1
10/1/2018	6.1	6.1	6.4	6.4	6.4	6.5	6.6	6.6
10/2/2018	6.3	6.3	6.2	6.1	5.9	6.1	6.4	6.2
7/16/2019	6.9	6.8	6.1	6.9	7.3	7.6	7.9	6.4
7/17/2019	8.3	8.3	8.6	8.6	6.9	8	9.2	9
7/22/2019	6.6	6.7	6.9	7.3	7	7.4	6.8	6.8
7/29/2019	9.2	10.5	7.8	10.4	7.6	11.7	9.8	12.6
7/30/2019	8.8	9.1	8.5	9.2	7.2	9.1	7.2	11.2
8/5/2019	8.6	9.3	7.3	6.9	6.9	10	7.4	7.7
8/6/2019	6.8	7.3	8	8.3	8.6	7.7	7	6.7
8/12/2019	7.6	7.5	7.9	8.8	6.7	8.7	8.9	8.4
8/13/2019	7.5	7.4	8	10	9.1	7.8	9	8.6
8/20/2019	8.4	8.7	8.6	9.4	7.8	8.3	9.9	6.8
8/21/2019	6.9	8	7.1	11.7	10.1	10.8	7.5	9.8
8/27/2019	6.2	6	6.3	7	6.7	6.6	5.5	5.7
8/28/2019	6.3	6.4	6.7	6.2	6.2	6.8	7.1	6.3
9/3/2019	8.2	7.8	8.2	7.3	8.3	7.7	7.5	7.8
9/4/2019	7.8	8.1	7.6	6.8	8.8	6.1	8.3	7.1
9/9/2019	9.5	8.4	6.9	9.9	9	11.2	5.9	7.9
9/11/2019	8.1	8.1	8.2	6.5	7.5	6.4	8	6.4
9/16/2019	8.4	10.4	6.7	10	10.8	11	5.7	7.2
9/18/2019	8.7	8.4	7	7	9.1	7.4	6.7	6.7
9/23/2019	8.1	9.1	9.2	7.8	7.9	6.4	6	6.3
9/25/2019	9.9	10.4	7.4	9.8	9.2	6.8	8	6.9
9/30/2019	10.8	10.2	7.7	10.9	8.6	8.4	8.3	6.4
10/2/2019	7.9	9	8.9	8.8	10.6	7.1	7.7	7.9
10/2/2019	7.1	6.7	6.1	7.9	5.6	6.6	5.7	6.8
10/7/2019	8.8	9.8	8.7	9.3	7.9	5.7	8	5.3

Table C-1
Summary of Receiving Stream Water Quality Monitoring Data
International Paper - Riverdale, AL Mill

Date		M	onitoring L	ocations Ala	bama Rive	r Mile (ARN	1)	
Date	ARM 221.4	ARM 219	ARM 216	ARM 212	ARM 208	ARM 204	ARM 200	ARM 196
10/14/2019	7	7.2	6	6.4	6.6	6.2	6	6.6
10/16/2019	6.7	6.8	6	6.2	6.2	6.2	5.6	6.3
10/22/2019	7.6	8.2	8.6	6.9	7	6	6.2	6.2
10/23/2019	8.1	7.7	6.2	8.1	9.4	6.6	6.5	5.0
10/28/2019	8.6	8.6	8.2	7.4	8.1	7.3	7.5	7.8
10/29/2019	8.3	8.4	8.4	8.4	8.5	8.5	7.2	6.8
7/27/2020	8.4	8.8	8.4	8.1	9.3	11.7	7.5	8.9
7/28/2020	7.4	7.5	8.1	9	9.2	9.5	8	9.4
8/10/2020	6.9	7.2	7.7	8.4	8.5	9.9	6.7	9.8
8/11/2020	6.8	6.9	7.2	7.1	7.2	7.7	9.8	9.2
8/17/2020	7.4	7.7	8.4	8.2	8.2	8.6	8.5	8.1
8/18/2020	7.7	7.6	7.6	8.3	7.4	8	7.4	7.6
9/15/2020	6.7	6.7	6.6	7.3	7.5	7.1	7.8	8.1
9/17/2020	8.1	8.2	8.1	8	7.8	7.6	7.5	7.7
6/28/2022	7.2	7.1	6.5	8.7	9.4	9.2	6.5	9.5
6/30/2022	6.6	6.3	6.8	6.5	6.5	7.1	7.4	6.7
7/12/2022	7.3	7.1	7.2	8.1	7.9	9	7.2	8.5
7/13/2022	6.8	6.9	6.4	7.2	6.3	6.5	7	7.6
7/26/2022	7.3	6.8	5.3	7.5	6.9	6.9	6.5	7.7
7/27/2022	7	7.2	5.9	9.7	5.4	6.4	6.4	7.3
8/31/2022	6.4	6.8	6.4	6.1	6.1	6.2	5.9	6.4
9/1/2022	7.5	7.5	8.3	8.8	6.9	6.8	10.1	7.1
9/6/2022	6	6.1	6.2	6.2	6.1	6	5.9	5.8
9/7/2022	6.8	6.8	6.6	6.5	6.3	6	5.7	5.3
9/13/2022	8	8.2	8.4	7.8	8.5	7.7	7.3	7.7
9/20/2022	10.3	10.4	9.1	9.3	7.4	7.2	9.8	7.7
9/21/2022	8.1	11.1	12.5	13.6	10.2	12.5	8.6	8.5
9/27/2022	7.1	7	6.9	9	8.6	9.5	7.9	7.9
9/28/2022	8.4	7.1	7.3	6.8	7.4	7.8	7.8	8.1
10/5/2022	9.2	10.3	8.8	8.2	9.6	12.1	8.4	10.7
10/6/2022	8.9	8.3	8.8	8.2	6.1	6	5.9	5.8
10/18/2022	8.6	8.8	8.5	9.4	8.5	7.7	7.4	8
10/19/2022	8.7	9.1	8.7	8.6	8.9	8.3	7.6	8.2
10/26/2022	8	8.4	8.2	8.5	8.2	7.9	8.2	8.1
10/27/2022	8.4	8.5	8.6	8.9	8.7	8.8	8.4	8.6
7/25/2023	6	5.9	5.9	6.2	5.6	6.2	6.1	6.2
7/26/2023	7.4	7	6.1	7.7	7.3	6	5.6	6.1

<sup>\*</sup>Lightning/thunderstorms prevented monitoring.



#### 3D TRASAR™ 3DT230

### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name

3D TRASAR™ 3DT230

Other means of identification:

Not applicable.

Recommended use

**COOLING WATER INHIBITOR** 

Restrictions on use

Refer to available product literature or ask your local Sales Representative for

restrictions on use and dose limits.

Company

Nalco Company

1601 W. Diehl Road

Naperville, Illinois 60563-1198

USA

TEL: (630) 305-1000

Emergency telephone

number

(800) 424-9300 (24 Hours) CHEMTREC

Issuing date

01/17/2020

#### Section: 2, HAZARDS IDENTIFICATION

#### **GHS Classification**

Skin corrosion

Category 1A

Serious eye damage

Category 1

#### **GHS Label element**

Hazard pictograms

Signal Word

Danger

**Hazard Statements** 

Causes severe skin burns and eye damage.

**Precautionary Statements** 

Prevention:

Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection. Do not mix with bleach or other chlorinated products - will cause chlorine gas.

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated

clothing before reuse.

Storage:

Store locked up.

Disposal:

### 3D TRASAR™ 3DT230

Dispose of contents/ container to an approved waste disposal plant.

Other hazards : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

 Chemical Name
 CAS-No.
 Concentration: (%)

 Phosphoric Acid
 7664-38-2
 1 - 5

 Sulfuric Acid
 7664-93-9
 1 - 5

 Benzotriazole
 95-14-7
 1 - 5

#### Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild

soap if available. Wash clothing before reuse. Thoroughly clean shoes before

reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by

mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms

occur.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put

yourself at risk of injury. If in doubt, contact emergency responders. Use

personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and

delayed

See Section 11 for more detailed information on health effects and symptoms.

#### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

Unsuitable extinguishing

media

None known.

Specific hazards during

firefighting

Not flammable or combustible.

Hazardous combustion

products

Decomposition products may include the following materials: Carbon oxides

Oxides of phosphorus

Special protective equipment : Use personal protective equipment.

### 3D TRASAR™ 3DT230

for firefighters

Specific extinguishing methods

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

**Environmental precautions** 

Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up Stop leak if safe to do so. Contain spillage, and then collect with noncombustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

Advice on safe handling

Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray, Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation. Do not mix with bleach or other chlorinated products will cause chlorine gas.

Conditions for safe storage

Keep away from strong bases. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

Suitable material

The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

Unsuitable material

not determined

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Phosphoric Acid	7664-38-2	TWA	1 mg/m3	ACGIH
•		STEL	3 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		STEL	3 mg/m3	NIOSH REL
		TWA	1 mg/m3	OSHA Z1
Sulfuric Acid	7664-93-9	TWA (Thoracic fraction)	0.2 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL

### 3D TRASAR™ 3DT230

TWA | 1 mg/m3 | OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below

occupational exposure standards.

#### Personal protective equipment

Eye protection : Safety goggles

Face-shield

Hand protection : Wear the following personal protective equipment:

Standard glove type.

Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety

goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove

and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : Clear to slightly hazy yellow to brown

Odour : Organic

Flash point : does not flash pH : 0.8,(100 %)

Odour Threshold : no data available

Melting point/freezing point : Freezing Point: -3.6 °C, ASTM D-1177

Initial boiling point and boiling:

range

no data available

Evaporation rate : no data available
Flammability (solid, gas) : Not applicable.
Upper explosion limit : no data available
Lower explosion limit : no data available

Vapour pressure : 7.5 hPa, (0 °C), ASTM D-2879,

25.3 hPa, (20 °C),

### 3D TRASAR™ 3DT230

64.0 hPa, (37.8 °C),

240 hPa, (65.6 °C),

706 hPa, (93.3 °C),

1,010 hPa, (103.3 °C),

Relative vapour density no data available

Relative density 1.1, (15.5 °C),

Density 1.10 g/cm3, 9.2 lb/gal

Water solubility completely soluble Solubility in other solvents no data available

Partition coefficient: n-

no data available octanol/water

Auto-ignition temperature no data available

Thermal decomposition no data available 4.23 mPa.s (20 °C) Viscosity, dynamic

no data available Viscosity, kinematic

no data available Molecular weight

VOC 0 %, EPA Method 24

#### Section: 10. STABILITY AND REACTIVITY

No dangerous reaction known under conditions of normal use. Reactivity

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Conditions to avoid Extremes of temperature

Incompatible materials Strong bases

Hazardous decomposition

products

Decomposition products may include the following materials:

Carbon oxides

Oxides of phosphorus

#### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Inhalation, Eye contact, Skin contact

exposure

#### **Potential Health Effects**

Causes serious eye damage. Eyes

Causes severe skin burns. Skin

Causes digestive tracit burns. Ingestion

### 3D TRASAR™ 3DT230

Inhalation : May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Corrosion

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

**Toxicity** 

**Product** 

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: > 40 mg/l

Exposure time: 4 h

Test atmosphere: vapour

Acute dermal toxicity : no data available
Skin corrosion/irritation : no data available

Serious eye damage/eye

irritation

no data available

Respiratory or skin

sensitization

no data available

Carcinogenicity : no data available
Reproductive effects : no data available
Germ cell mutagenicity : no data available
Teratogenicity : no data available
STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity

no data available

Components

Acute dermal toxicity : Phosphoric Acid

LD50 rabbit: > 2,000 mg/kg

Benzotriazole

LD50 rabbit: > 10,000 mg/kg

#### Section: 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

Environmental Effects : This product has no known ecotoxicological effects.

#### 3D TRASAR™ 3DT230

#### **Product**

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 3,415 mg/l

Exposure time: 96 h Test substance: Product

NOEC Pimephales promelas (fathead minnow): 2,500 mg/l

Exposure time: 96 h Test substance: Product

LC50 Oncorhynchus mykiss (rainbow trout): 1,472 mg/l

Exposure time: 96 h
Test substance: Product

NOEC Oncorhynchus mykiss (rainbow trout): 1,200 mg/l

Exposure time: 96 h Test substance: Product

Toxicity to daphnia and other

aquatic invertebrates

: NOEC Ceriodaphnia dubia: 1,250 mg/l

Exposure time: 48 h Test substance: Product

LC50 Ceriodaphnia dubia: 1,768 mg/l

Exposure time: 48 h
Test substance: Product

Components

Toxicity to algae : Phosphoric Acid

EC50 Desmodesmus subspicatus (green algae): > 100 mg/l

Exposure time: 72 h

Benzotriazole

EC50 algae: 15.4 mg/l Exposure time: 72 h

Components

Toxicity to daphnia and other aquatic invertebrates : Benzotriazole NOEC: 0.97 m

(Chronic toxicity)

Benzotriazole NOEC: 0.97 mg/l Exposure time: 21 d

#### Persistence and degradability

The organic portion of this preparation is expected to be inherently biodegradable.

Total Organic Carbon (TOC): 46,000 mg/l

Chemical Oxygen Demand (COD): 150,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period Value

Test Descriptor

300 mg/l

**Mobility** 

#### 3D TRASAR™ 3DT230

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5% Water : 30 - 50% Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

#### Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods : Where possible recycling is preferred to disposal or

incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an

approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be

taken to an approved waste handling site for recycling or

disposal. Do not re-use empty containers.

#### Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

#### Land transport (DOT)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Technical name(s) : PHOSPHORIC ACID, SULFURIC ACID

UN/ID No. : UN 3264

Transport hazard class(es) : 8
Packing group : III

Reportable Quantity (per : 53,642 lbs

package)

RQ Component : SULFURIC ACID

Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

### 3D TRASAR™ 3DT230

Technical name(s) : PHOSPHORIC ACID, SULFURIC ACID

UN/ID No. : UN 3264

Transport hazard class(es) : 8
Packing group : III

Reportable Quantity (per : 53,642 lbs

package)

RQ Component : SULFURIC ACID

Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Technical name(s) : PHOSPHORIC ACID, SULFURIC ACID

UN/ID No. : UN 3264

Transport hazard class(es) : 8
Packing group : III

#### Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification

requirements.

#### EPCRA - Emergency Planning and Community Right-to-Know Act

#### **CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric Acid	7664-93-9	1000	53642

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sulfuric Acid	7664-93-9	1000	53642

SARA 311/312 Hazards : Skin corrosion or irritation

Serious eye damage or eye irritation

SARA 302 : The following components are subject to reporting levels established

by SARA Title III, Section 302:

Sulfuric Acid 7664-93-9

SARA 313 : The following components are subject to reporting levels established

by SARA Title III, Section 313:

Sulfuric Acid 7664-93-9 1.8642 %

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### 3D TRASAR™ 3DT230

#### **INTERNATIONAL CHEMICAL CONTROL LAWS:**

#### **United States TSCA Inventory**

On or in compliance with the active portion of the TSCA inventory

#### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

#### Korea. Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

#### Japan, ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

#### Australia. Industrial Chemical (Notification and Assessment) Act

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

#### **China Inventory of Existing Chemical Substances**

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

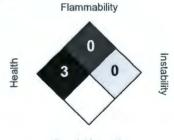
This product contains substance(s) which are not in compliance with the Republic Act 6969 (RA 6969) and may require additional review.

#### **Taiwan Chemical Substance Inventory**

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

#### Section: 16. OTHER INFORMATION





Special hazard.

#### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High 4 = Extreme, \* = Chronic

: 01/17/2020 Revision Date

Version Number : 1.9

Prepared By : Regulatory Affairs

### 3D TRASAR™ 3DT230

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit www.nalco.com and request access.



#### **NALCO® 7384**

#### Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name

**NALCO® 7384** 

Other means of identification:

Not applicable.

Recommended use

CORROSION INHIBITOR

Restrictions on use

Refer to available product literature or ask your local Sales Representative for

restrictions on use and dose limits.

Company

Nalco Company

1601 W. Diehl Road

Naperville, Illinois 60563-1198

USA

TEL: (630) 305-1000

Emergency telephone

number

(800) 424-9300 (24 Hours) CHEMTREC

Issuing date

02/06/2020

#### Section: 2. HAZARDS IDENTIFICATION

#### **GHS Classification**

Acute toxicity (Oral)

Skin corrosion Serious eye damage Category 4 Category 1B

Category 1

### **GHS Label element**

Hazard pictograms



Signal Word

Danger

**Hazard Statements** 

Harmful if swallowed.

Causes severe skin burns and eye damage.

**Precautionary Statements** 

Prevention:

Do not eat, drink or smoke when using this product. Wear protective gloves/

protective clothing/ eye protection/ face protection.

Response:

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel

unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all

contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/ physician.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

#### **NALCO® 7384**

Other hazards

None known.

#### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture

Mixture

**Chemical Name** 

CAS-No.

Concentration: (%)

Zinc Chloride

7646-85-7

60 - 100

#### Section: 4. FIRST AID MEASURES

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed

Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled

Remove to fresh air. Treat symptomatically. Get medical attention if symptoms

occur.

Protection of first-aiders

In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician

Treat symptomatically.

Most important symptoms and effects, both acute and

delayed

See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing

media

None known.

Specific hazards during

firefighting

Not flammable or combustible.

Hazardous combustion

products

Hydrogen chloride metal oxides

Special protective equipment :

for firefighters

Use personal protective equipment.

#### **NALCO® 7384**

Specific extinguishing methods

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

#### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up

Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

#### Section: 7. HANDLING AND STORAGE

Advice on safe handling

Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage

Keep away from strong bases. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

Suitable material

The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

Unsuitable material

The following compatibility data is suggested based on similar product data and/or industry experience: Metals

#### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Zinc Chloride	7646-85-7	TWA (Fumes)	1 mg/m3	OSHA Z1
		TWA (Fumes)	1 mg/m3	ACGIH
		STEL (Fumes)	2 mg/m3	ACGIH
		TWA (Fumes)	1 mg/m3	NIOSH REL
		STEL (Fumes)	2 mg/m3	NIOSH REL

**Engineering measures** 

Effective exhaust ventilation system. Maintain air concentrations below

occupational exposure standards.

#### **NALCO® 7384**

#### Personal protective equipment

Eye protection : Safety goggles

Face-shield

Hand protection : Wear protective gloves.

Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety

goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice, Remove

and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

#### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : colourless to light yellow

Odour : None

Flash point : Will not burn: inorganic or water-based product

no data available

>= 1.785, (15.6 °C),

pH : 1 - 2, Neat

Odour Threshold : no data available

Melting point/freezing point : <-29 °C, ASTM D-1177

Initial boiling point and boiling:

Upper explosion limit

Relative density

range

135 °C, Method: ASTM D 86

Evaporation rate : no data available

Flammability (solid, gas) : Not applicable.

Lower explosion limit : no data available

Vapour pressure : no data available

Relative vapour density : no data available

470 / 0 440 45 11 / -

Density : 1.79 g/cm3 , 14.9 - 15 lb/gal

Water solubility : completely soluble
Solubility in other solvents : no data available

#### **NALCO® 7384**

Partition coefficient: n-

octanol/water

no data available

Auto-ignition temperature Thermal decomposition

no data available no data available

Viscosity, dynamic

no data available

Viscosity, kinematic

no data available

Molecular weight

no data available

VOC

0 %, 0 g/l, EPA Method 24

### Section: 10. STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under normal conditions.

Possibility of hazardous

reactions

Gives off hydrogen by reaction with metals.

Conditions to avoid

None known.

Incompatible materials

Strong bases

Hazardous decomposition

products

In case of fire, hazardous decomposition products may be produced such as:

Hydrogen chloride

metal oxides

### Section: 11. TOXICOLOGICAL INFORMATION

exposure

Information on likely routes of : Inhalation, Eye contact, Skin contact

#### **Potential Health Effects**

Eyes

Causes serious eye damage.

Skin

Causes severe skin burns.

Ingestion

Harmful if swallowed. Causes digestive tract burns.

Inhalation

May cause nose, throat, and lung irritation.

Chronic Exposure

Health injuries are not known or expected under normal use.

#### Experience with human exposure

Eye contact

Redness, Pain, Corrosion

Skin contact

Redness, Pain, Corrosion

Ingestion

Corrosion, Abdominal pain

#### **NALCO® 7384**

Inhalation

Respiratory irritation, Cough

**Toxicity** 

**Product** 

Acute oral toxicity

Acute toxicity estimate: 1,184 mg/kg

Acute inhalation toxicity Acute dermal toxicity

no data available no data available no data available

Skin corrosion/irritation

Serious eye damage/eye

no data available

irritation

Respiratory or skin sensitization

no data available

Carcinogenicity

no data available

Reproductive effects

No toxicity to reproduction

Germ cell mutagenicity

Contains no ingredient listed as a mutagen

Teratogenicity STOT - single exposure no data available no data available

STOT - repeated exposure

no data available

Aspiration toxicity

No aspiration toxicity classification

#### Section: 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

**Environmental Effects** 

: Very toxic to aquatic life with long lasting effects.

**Product** 

Toxicity to fish

: LC50 Rainbow Trout: 1.13 mg/l

Exposure time: 96 hrs

Test substance: Tested in Soft Water (40-48 mg/L as CaC03)

Test Type: Flow-through

LC50 Fathead Minnow: 1.83 mg/l

Exposure time: 96 hrs

Test substance: Tested in Soft Water (40-48 mg/L as CaC03)

Test Type: Flow-through

LC50 Rainbow Trout; 5.78 mg/l

Exposure time: 96 hrs

Test substance: Tested in Hard Water (160-180 mg/L as

CaC03)

Test Type: Flow-through

LC50 Fathead Minnow: 24.96 mg/l

Exposure time: 96 hrs

Test substance: Tested in Hard Water (160-180 mg/L as

#### **NALCO® 7384**

CaC03)

Test Type: Flow-through

LC50 Bluegill Sunfish: 5 - 18.5 mg/l

Exposure time: 96 hrs
Test substance: Product

LC50 Rainbow Trout: 0.8 - 1.8 mg/l

Exposure time: 96 hrs Test substance: Product

LC50 Menidia peninsulae: 18.8 mg/l

Exposure time: 96 hrs
Test substance: Product

Toxicity to daphnia and other aquatic invertebrates

: LC50 Daphnia magna: 0.85 mg/l

Exposure time: 48 hrs

Test substance: Tested in Soft Water (40-48 mg/L as CaC03)

Test Type: Static

LC50 Daphnia magna: 2.43 mg/l

Exposure time: 48 hrs

Test substance: Tested in Hard Water (160-180 mg/L as

CaC03)

Test Type: Flow-through

LC50 Daphnia magna: 0.15 - 0.9 mg/l

Exposure time: 48 hrs Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): 1.7 mg/l

Exposure time: 48 hrs Test substance: Product

#### Persistence and degradability

The product does not contain any organic substances.

#### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5% Water : 30 - 50% Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

#### Bioaccumulative potential

# **NALCO® 7384**

no data available

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

: The product should not be allowed to enter drains, water Disposal methods

> courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in

an approved waste disposal facility.

: Dispose of as unused product. Empty containers should be Disposal considerations

taken to an approved waste handling site for recycling or

disposal. Do not re-use empty containers.

# Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

### Land transport (DOT)

: ZINC CHLORIDE, SOLUTION Proper shipping name

Technical name(s)

UN/ID No. **UN 1840** 

Transport hazard class(es) : 8 Packing group : 111

Reportable Quantity (per

package)

**RQ** Component

: Zinc Chloride

# Air transport (IATA)

: ZINC CHLORIDE, SOLUTION Proper shipping name

Technical name(s)

UN/ID No. **UN 1840** 

Transport hazard class(es) 8 Packing group 111

Reportable Quantity (per

package) **RQ** Component : 1,600 lbs

: 1,600 lbs

: Zinc Chloride

### Sea transport (IMDG/IMO)

: ZINC CHLORIDE, SOLUTION Proper shipping name

Technical name(s)

UN/ID No. **UN 1840** 

Transport hazard class(es) : 8

# **NALCO® 7384**

Packing group : III

\*Marine pollutant : Zinc Chloride

\* Note: This product is regulated as a Marine Pollutant when shipped by Rail or Highway (in bulk quantities), and when shipped by water in all quantities.

### Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification

requirements.

# **EPCRA - Emergency Planning and Community Right-to-Know Act**

# **CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Zinc Chloride	7646-85-7	1000	1600

# SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute toxicity (any route of exposure)

Skin corrosion or irritation

Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302

EHS TPQ.

SARA 313 : The following components are subject to reporting levels established

by SARA Title III, Section 313:

Zinc Chloride 7646-85-7 50 - 70 %

# California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

#### INTERNATIONAL CHEMICAL CONTROL LAWS:

# **United States TSCA Inventory**

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

# Australia. Industrial Chemical (Notification and Assessment) Act

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

# Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

### Japan. ENCS - Existing and New Chemical Substances Inventory

# **NALCO® 7384**

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

### Korea, Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

### **China Inventory of Existing Chemical Substances**

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

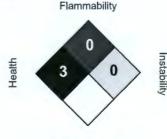
All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

# **Taiwan Chemical Substance Inventory**

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### Section: 16. OTHER INFORMATION

#### NFPA:



Special hazard.

#### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme, \* = Chronic

**Revision Date** 

: 02/06/2020

Version Number

: 1.4

Prepared By

: Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit www.nalco.com and request access.

# **NALCO** Water An Ecolab Company

### SAFETY DATA SHEET

**CL-50** 

# Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name

CL-50

Other means of identification:

Not applicable.

Recommended use

**CORROSION INHIBITOR** 

Restrictions on use

Refer to available product literature or ask your local Sales Representative for

restrictions on use and dose limits.

Company

: Nalco Company

1601 W. Diehl Road

Naperville, Illinois 60563-1198

USA

TEL: (630) 305-1000

Emergency telephone

number

(800) 424-9300 (24 Hours) CHEMTREC

Issuing date

01/27/2022

# Section: 2. HAZARDS IDENTIFICATION

#### **GHS Classification**

Not a hazardous substance or mixture.

### **GHS Label element**

**Precautionary Statements** 

: Prevention:

Wash hands thoroughly after handling.

Response:

Get medical advice/ attention if you feel unwell.

Store in accordance with local regulations.

Other hazards

: None known.

# Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture

**Mixture** 

No hazardous ingredients

# Section: 4. FIRST AID MEASURES

In case of eye contact

Rinse with plenty of water. Get medical attention if symptoms occur.

In case of skin contact

Wash off with soap and plenty of water. Get medical attention if symptoms

occur,

If swallowed

Rinse mouth. Get medical attention if symptoms occur.

If inhaled

Get medical attention if symptoms occur.

# **CL-50**

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put

yourself at risk of injury. If in doubt, contact emergency responders. Use

personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and

delayed

See Section 11 for more detailed information on health effects and symptoms.

# Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

Unsuitable extinguishing

media

None known.

Specific hazards during

firefighting

Not flammable or combustible.

Hazardous combustion

products

Decomposition products may include the following materials: Oxides of

phosphorus

Special protective equipment:

for firefighters

Use personal protective equipment.

Specific extinguishing

methods

Fire residues and contaminated fire extinguishing water must be disposed of in

accordance with local regulations.

# Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Refer to protective measures listed in sections 7 and 8.

**Environmental precautions** 

No special environmental precautions required.

Methods and materials for containment and cleaning up

Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces

with water.

# Section: 7. HANDLING AND STORAGE

Advice on safe handling : For personal protection see section 8. Wash hands after handling.

Conditions for safe storage

Keep out of reach of children. Keep container tightly closed. Store in suitable

labelled containers.

# **CL-50**

Suitable material : The following compatibility data is suggested based on similar product data

and/or industry experience: HDPE (high density polyethylene), Stainless Steel 304, Compatibility with Plastic Materials can vary; we therefore recommend that

compatibility is tested prior to use.

Unsuitable material : not determined

# Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Good general ventilation should be sufficient to control worker exposure to

airborne contaminants.

### Personal protective equipment

Eye protection : Safety glasses

Hand protection : Wear protective gloves.

Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Skin protection : Wear suitable protective clothing.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : Wash hands before breaks and immediately after handling the product.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

# Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid
Colour : colourless
Odour : odourless

Flash point : does not flash

pH : 6.0 - 7.0,(100 %), (25 °C)

Odour Threshold : no data available

Melting point/freezing point : no data available

Initial boiling point and boiling : > 100 °C

range

Evaporation rate : similar to water

Flammability (solid, gas) : Not applicable.

Upper explosion limit : no data available

Lower explosion limit : no data available

# **CL-50**

Vapour pressure : similar to water

Relative vapour density : no data available

Relative density : 1.37 - 1.42, (25 °C),

Density : 11.4 - 11.8 lb/gal

Water solubility : completely soluble

Solubility in other solvents : no data available

Partition coefficient: n- : no

octanol/water

: no data available

Auto-ignition temperature

: Not flammable

Thermal decomposition : no data available

Viscosity, dynamic : no data available

Viscosity, kinematic : no data available

Molecular weight : no data available

VOC : 0 %, 0 g/l, Calculation method

# Section: 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid : None known.

Incompatible materials : None known

Hazardous decomposition

products

In case of fire, hazardous decomposition products may be produced such as:

Oxides of phosphorus

### Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Inhalation, Eye contact, Skin contact

exposure

### **Potential Health Effects**

Eyes : Health injuries are not known or expected under normal use.

Skin : Health injuries are not known or expected under normal use.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

# **CL-50**

### Experience with human exposure

Eye contact No symptoms known or expected.

Skin contact No symptoms known or expected.

Ingestion No symptoms known or expected.

Inhalation : No symptoms known or expected.

**Toxicity** 

**Product** 

Acute oral toxicity no data available Acute inhalation toxicity no data available Acute dermal toxicity no data available Skin corrosion/irritation Species: Rabbit Result: 0.2

Method: Draize Test

Test substance: Product

Serious eye damage/eye

irritation

Species: rabbit Result: 0.0 - 4 Method: Draize Test

Test substance: Product

Respiratory or skin

sensitization

no data available

Carcinogenicity no data available

Reproductive effects No reproductive toxic effects expected.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Teratogenicity no data available STOT - single exposure no data available STOT - repeated exposure no data available Aspiration toxicity no data available

# Section: 12. ECOLOGICAL INFORMATION

### Toxicity

**Environmental Effects** : This product has no known ecotoxicological effects.

**Product** 

: LC50 Pimephales promelas (fathead minnow): 1,162 mg/l Toxicity to fish

> Exposure time: 96 hrs Test substance: Product

Toxicity to daphnia and other

aquatic invertebrates

: LC50 Daphnia magna (Water flea): > 1,000 mg/l

Exposure time: 48 hrs

# **CL-50**

Test substance: Product

EC50 Daphnia magna (Water flea): 910 mg/l

Exposure time: 48 hrs Test substance: Product

NOEC Daphnia magna (Water flea): 400 mg/l

Exposure time: 48 hrs Test substance: Product

EC50 Ceriodaphnia dubia: 884 mg/l

Exposure time: 48 hrs Test substance: Product

LC50 Ceriodaphnia dubia: 915 mg/l

Exposure time: 48 hrs Test substance: Product

NOEC Ceriodaphnia dubia: 625 mg/l

Exposure time: 48 hrs Test substance: Product

# Persistence and degradability

Greater than 95% of this product consists of inorganic substances for which a biodegradation value is not applicable.

Total Organic Carbon (TOC): 12 mg/l

Chemical Oxygen Demand (COD): 32 mg/l

### Mobility

High phosphate levels in surface water can cause eutrophication with subsequent algal blooms and oxygen depletion.

Air : Water : Soil :

# Bioaccumulative potential

This preparation or material is not expected to bioaccumulate.

#### Other information

no data available

# Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

Disposal methods : Where possible recycling is preferred to disposal or

incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations Dispose of wastes in an approved waste disposal facility.

# **CL-50**

Disposal considerations : Dispose of as unused product. Empty containers should be

taken to an approved waste handling site for recycling or

disposal. Do not re-use empty containers.

# Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Land transport (DOT)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Air transport (IATA)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

Sea transport (IMDG/IMO)

Proper shipping name : PRODUCT IS NOT REGULATED DURING TRANSPORTATION

# Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification

requirements.

**EPCRA - Emergency Planning and Community Right-to-Know Act** 

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : This material does not contain any components with a section 302

EHS TPQ.

SARA 313 : This material does not contain any chemical components with known

CAS numbers that exceed the threshold (De Minimis) reporting levels

established by SARA Title III, Section 313.

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

# **INTERNATIONAL CHEMICAL CONTROL LAWS:**

# **United States TSCA Inventory**

On or in compliance with the active portion of the TSCA inventory

**CL-50** 

### Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

### China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

#### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

### Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

# Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

### Korea. Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

### **Taiwan Chemical Substance Inventory**

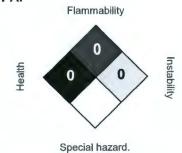
All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

### New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

# Section: 16. OTHER INFORMATION





### HMIS III:

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High 4 = Extreme, \* = Chronic

: 01/27/2022 **Revision Date** 

Version Number 2.0

Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

# CL-50

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit www.nalco.com and request access.



# TOWERBROM™ 991

# Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : TOWERBROM™ 991

Other means of identification : Not applicable.

Recommended use : MICROBIOLOGICAL INDUSTRIAL CONTROL

Restrictions on use : Refer to available product literature or ask your local Sales Representative for

restrictions on use and dose limits.

Company : Nalco Company

1601 W. Diehl Road

Naperville, Illinois 60563-1198

USA

TEL: (630)305-1000

Emergency telephone

number

(800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 05/06/2019

# Section: 2. HAZARDS IDENTIFICATION

#### **GHS Classification**

Oxidizing solids : Category 2
Acute toxicity (Oral) : Category 3
Acute toxicity (Inhalation) : Category 4
Acute toxicity (Dermal) : Category 4
Skin corrosion : Category 1A

Serious eye damage : Category 1

Specific target organ toxicity : Category 3 (Respiratory system)

- single exposure

# **GHS Label element**

Hazard pictograms







Signal Word : Danger

Hazard Statements : May intensify fire; oxidiser.

Toxic if swallowed.

Harmful in contact with skin or if inhaled Causes severe skin burns and eye damage.

May cause respiratory irritation.

Precautionary Statements : Prevention:

Keep away from heat. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dusts or mists. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area.

# TOWERBROM™ 991

Wear protective gloves/ protective clothing/ eye protection/ face protection. Response:

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting, IF ON SKIN (or hair); Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower, IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse. In case of fire: Use dry sand, dry chemical or alcoholresistant foam for extinction.

Storage:

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards None known.

# Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No. Chemical Name Concentration: (%) 87-90-1 92.9 Trichloro-S-Triazinetrione

Sodium Bromide 7647-15-6 6.9

### Section: 4. FIRST AID MEASURES

In case of eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Get medical attention immediately.

Wash off immediately with plenty of water for at least 15 minutes. Use a mild In case of skin contact

soap if available. Wash clothing before reuse. Thoroughly clean shoes before

reuse. Get medical attention immediately.

: Rinse mouth with water. Do NOT induce vomiting. Never give anything by If swallowed

mouth to an unconscious person. Get medical attention immediately.

Remove to fresh air. Treat symptomatically. Get medical attention if symptoms If inhaled

occur.

In event of emergency assess the danger before taking action. Do not put Protection of first-aiders

yourself at risk of injury. If in doubt, contact emergency responders. Use

personal protective equipment as required.

Notes to physician Treat symptomatically.

Most important symptoms

and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

Use extinguishing measures that are appropriate to local circumstances and the Suitable extinguishing media :

surrounding environment.

# TOWERBROM™ 991

Unsuitable extinguishing

media

: None known.

Specific hazards during

firefighting

Oxidizer. Contact with other material may cause fire.

Hazardous combustion

products

Carbon oxides

Special protective equipment:

for firefighters

Use personal protective equipment.

Specific extinguishing

methods

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not

breathe fumes.

### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only.

Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Do not allow contact with soil, surface or ground water.

### Section: 7. HANDLING AND STORAGE

Advice on safe handling

Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only

with adequate ventilation.

Conditions for safe storage

: Keep in a cool, well-ventilated place. Keep away from reducing agents. Keep away from combustible material. Keep out of reach of children. Keep container

tightly closed. Store in suitable labelled containers.

Suitable material

Keep in properly labelled containers.

Unsuitable material

: not determined

# Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Components with workplace control parameters

This product does not contain any substances with occupational exposure limits (OELs), however the manufacturer recommended advisory (non-regulatory) exposure limit for the product is 0.5 mg/m3 8 hour Time Weighted Average (TWA).

**Engineering measures** 

: Effective exhaust ventilation system. Maintain air concentrations below

occupational exposure standards.

### Personal protective equipment

# TOWERBROM™ 991

Eye protection Safety goggles

Face-shield

Hand protection Wear the following personal protective equipment:

Standard glove type.

Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Skin protection Personal protective equipment comprising; suitable protective gloves, safety

goggles and protective clothing

When workers are facing concentrations above the exposure limit they must use Respiratory protection

appropriate certified respirators.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Remove

> and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

# Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

**Tablet Appearance** 

Colour off-white Odour Slight

Pungent, Halogen

Flash point Not applicable.

рН 3.0 - 3.5,(1 %), (25 °C)

Odour Threshold no data available

MELTING POINT: > 225 °C, Decomposes Melting point/freezing point

Initial boiling point and boiling:

range

> 225 °C. Decomposes on heating.

no data available Evaporation rate Flammability (solid, gas) no data available

Upper explosion limit no data available Lower explosion limit no data available no data available

Vapour pressure no data available Relative vapour density

Relative density no data available no data available Density

0.12 g/l (25 °C) Water solubility

no data available Solubility in other solvents

Partition coefficient: n-

octanol/water

no data available

Auto-ignition temperature no data available

# TOWERBROM™ 991

Thermal decomposition

no data available

Viscosity, dynamic

no data available

Viscosity, kinematic

no data available

Molecular weight

no data available

VOC

0 %

### Section: 10. STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid

Do not allow water to enter container.

Incompatible materials

Contact with strong alkalies (e.g. ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanide. sulfide, hypochlorites, chlorites) may generate heat, splattering or boiling and toxic vapors.

Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires,

explosions and/or toxic vapors.

Do not bring in contact with organic materials and reducing agents.

Acids Bases

Hazardous decomposition products

Oxides of nitrogen (NOx), disodium oxide, bromine, and traces of phosgene (under fire conditions); chlorine (released in presence of moisture) and other chlorine containing compounds; hypobromous acid, hypochlorous acid, and cyanuric acid (released when dissolved in water); nitrogen trichloride, an explosion hazard (generated slowly by the reaction of small quantities of water with high concentration of this product).

# Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Eye contact, Skin contact

exposure

#### **Potential Health Effects**

Eyes

Causes serious eye damage.

Skin

Causes severe skin burns. Harmful in contact with skin.

Ingestion

Toxic if swallowed. Causes digestive tract burns.

Inhalation

Harmful if inhaled. May cause respiratory tract irritation. May cause nose, throat,

and lung irritation.

Chronic Exposure

Health injuries are not known or expected under normal use.

# TOWERBROM™ 991

# Experience with human exposure

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Pain, Corrosion

Ingestion : Corrosion, Abdominal pain

Inhalation : Respiratory irritation, Cough

**Toxicity** 

**Product** 

Acute oral toxicity : LD50 rat: 840 mg/kg

Test substance: Hazardous component

LD50 rat: 200 mg/kg Test substance: Product

Acute inhalation toxicity : LC50 rat: 15 mg/l

Exposure time: 4 hrs Test atmosphere: vapour Test substance: Product

Acute dermal toxicity : LD50 rabbit: 1,500 mg/kg

Skin corrosion/irritation : Result: Corrosive
Serious eye damage/eye : Result: Corrosive

Serious eye damage/eye irritation

Respiratory or skin

sensitization

no data available

Carcinogenicity : no data available
Reproductive effects : no data available
Germ cell mutagenicity : no data available
Teratogenicity : no data available
STOT - single exposure : no data available
STOT - repeated exposure : no data available

Aspiration toxicity : no data available

# Section: 12. ECOLOGICAL INFORMATION

### **Ecotoxicity**

Environmental Effects : Very toxic to aquatic life with long lasting effects.

**Product** 

Toxicity to fish : LC50 Inland Silverside: 1.0 mg/l

Exposure time: 96 hrs Test substance: Product

# TOWERBROM™ 991

LC50 Pimephales promelas (fathead minnow): 0.26 mg/l

Exposure time: 48 hrs Test substance: Product

Toxicity to daphnia and other aquatic invertebrates

: LC50 Mysid Shrimp (Mysidopsis bahia): 1.6 mg/l

Exposure time: 96 hrs Test substance: Product

LC50 Daphnia magna (Water flea): 0.93 mg/l

Exposure time: 48 hrs Test substance: Product

Toxicity to algae

: LC50 Green Algae (Pseudokirchneriella subcapitata, previously Selenastrum capricornutum): 0.2 mg/l

Exposure time: 96 hrs Test substance: Product

### Persistence and degradability

The organic content of the product is biological degradable.

### Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air

: <5% : 30 - 50%

Water Soil

: 50 - 70%

### Bioaccumulative potential

The product will not bioaccumulate.

#### Other information

no data available

### Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste:

: D001, D003

Disposal methods

: The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in

# TOWERBROM™ 991

an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be

taken to an approved waste handling site for recycling or

disposal. Do not re-use empty containers.

# Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

### Land transport (DOT)

Proper shipping name : TRICHLOROISOCYANURIC ACID, DRY, MIXTURE

Technical name(s) : Trichloro-S-Triazinetrione

UN/ID No. : UN 2468

Transport hazard class(es) : 5.1
Packing group : II

# Air transport (IATA)

Proper shipping name : TRICHLOROISOCYANURIC ACID, DRY, MIXTURE

Technical name(s) : Trichloro-S-Triazinetrione

UN/ID No. : UN 2468 Transport hazard class(es) : 5.1

Packing group : 5.1

# Sea transport (IMDG/IMO)

Proper shipping name : TRICHLOROISOCYANURIC ACID, DRY, MIXTURE

Technical name(s) : Trichloro-S-Triazinetrione

UN/ID No. : UN 2468
Transport hazard class(es) : 5.1
Packing group : II

\*Marine pollutant : Trichloro-S-Triazinetrione

### Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification

requirements.

**EPA Reg. No.** : 935-75-1706

# **EPCRA - Emergency Planning and Community Right-to-Know Act**

### **CERCLA Reportable Quantity**

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

<sup>\*</sup> Note: This product is regulated as a Marine Pollutant when shipped by Rail or Highway (in bulk quantities), and when shipped by water in all quantities.

# TOWERBROM™ 991

# SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards

: Oxidiser (liquid, solid or gas)

Specific target organ toxicity (single or repeated exposure)

Acute toxicity (any route of exposure) Serious eye damage or eye irritation

Skin corrosion or irritation

**SARA 302** 

: No chemicals in this material are subject to the reporting requirements

of SARA Title III, Section 302.

**SARA 313** 

: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels

established by SARA Title III, Section 313.

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### **INTERNATIONAL CHEMICAL CONTROL LAWS:**

### **United States TSCA Inventory**

This product is exempted under TSCA and regulated under FIFRA. The inerts are on the Inventory List.

### Australia. Industrial Chemical (Notification and Assessment) Act

All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

#### Canadian Domestic Substances List (DSL)

Substances regulated under the Pest Control Products Act are exempt from CEPA New Substance Notification requirements.

### Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

### Korea, Korean Existing Chemicals Inventory (KECI)

All substances in this product comply with the Chemical Control Act (CCA) and are listed on the Existing Chemicals List (ECL)

# New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand not determined

# Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

#### **China Inventory of Existing Chemical Substances**

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

# TOWERBROM™ 991

# **Taiwan Chemical Substance Inventory**

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

# Section: 16. OTHER INFORMATION

#### NFPA:

Special hazard.

### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	2

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme, \* = Chronic

Revision Date : 05/06/2019

Version Number : 1.3

Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. For additional copies of an SDS visit www.nalco.com and request access.



RIVERDALE MILL 601 COUNTY ROAD 78 SELMA, AL 36703-8311 PHONE 334-872-3481

November 15, 2023

Alabama Department of Environmental Management (ADEM)

Post Office Box 301463 Montgomery, AL 36130-1463 ATTN: Scott Jackson, Water Division

RE: International Paper – Riverdale Mill

National Pollution Discharge Elimination System Permit No. AL0003018

Addendum to Renewal Application

Dear Mr. Jackson:

International Paper (IP) owns and operates a Kraft pulp and paper mill (Mill) in Selma, AL along the Alabama River. The Mill currently operates pursuant to National Pollution Discharge Elimination System (NPDES) Permit No. AL0003018, which expires on March 31, 2024. The renewal application was submitted 180 days prior to the expiration date on October 3, 2023.

The Mill was unable to submit a complete United States (U.S.) Environmental Protection Agency (EPA) Form 2F due to delayed sample results from the contract lab. Those results have been received and are included in the attached U.S. EPA Form 2F. The original contracted lab was unable to test for the following compounds:

- 3,4,6-Trichloroguaiacol
- 3,4,6-Trichlorocatechol
- 3,4,5-Trichloroguaiacol
- 3,4,5-Trichlorocatechol
- Tetrachloroguaiacol
- Tetrachlorocatechol
- Trichlorosyringol
- 4,5,6-Trichloroguaiacol

The Mill had to re-sample the stormwater outfalls, which included waiting for a rain event to occur, and contract with another laboratory that could run the analyses. The sampling occurred on October 11, 2023, results have been received, and included in the attached U. S. EPA Form 2F. Attachment 2 contains all of the laboratory analytical data received after the October 3<sup>rd</sup> submittal as well as the re-sampling of the stormwater outfalls on October 11<sup>th</sup>.

Based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

If you have any questions or require additional information, please contact me by phone at 334-418-5232 or by email at Hugh.Gatwood@ipaper.com.

Sincerely,

**Hugh Gatwood** 

**Environmental Manager** 

Hugh Satur

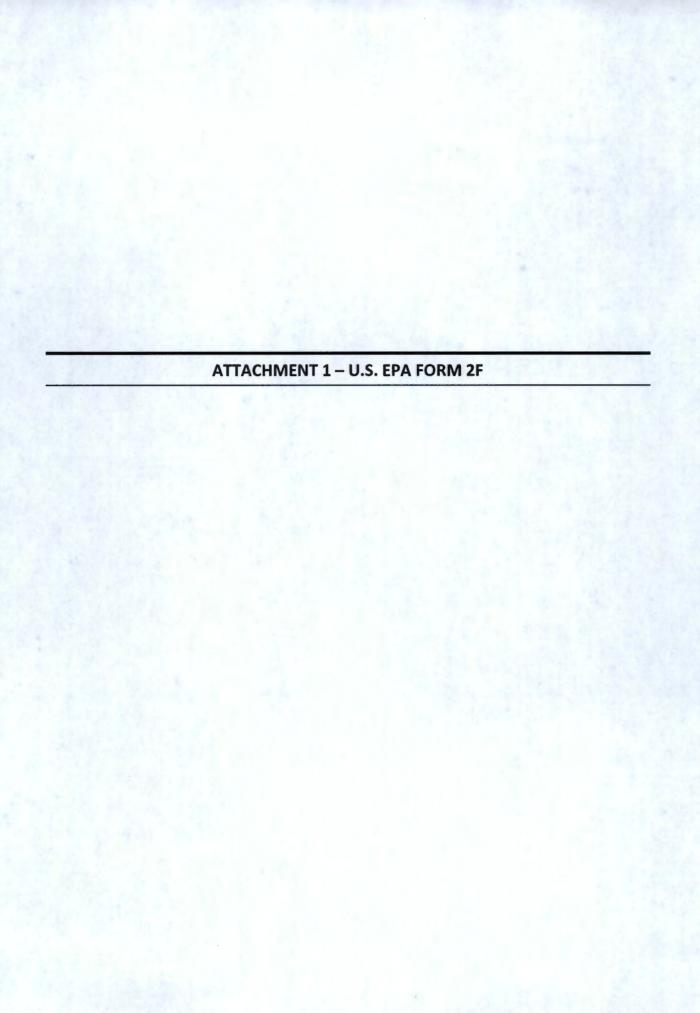
CC:

Carla Pearson - International Paper

Susie Bowden - ALL4 LLC

Attachments: Attachment 1-U.S. EPA Form 2F

Attachment 2 - Laboratory Analytical Data



EPA Identification Number NPDES Permit Number Facility Name ALD000645457 AL0003018 International Paper - Riverdale Form Approved 03/05/19 OMB No. 2040-0004

Form



# **U.S Environmental Protection Agency**

2F NPDES	8	Application for NPDES Permit to Discharge Wastewater  STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY								
SECTION	N 1. OUT	FALL LOCA	TION (40 CFR 122.21		IOOHARO	LO AOC	OOIATED III	THE INDUCTION	MAL AUTIVI	
	1.1		ormation on each of the		outfalls in t	he table	below			
		Outfall Number	Receiving Water I	Name		Latitu	de		Longitude	
Outfall Location		DSN004	Untitled tributary - A	AL River	32°	25	23"	86°	52′ 3	1"
		DSN005	Untitled tributary - A	AL River	32°	25	15"	86°	52' 2	6"
		DSN006	Untitled tributary - A	AL River	32°	25′	17"	86°		.5"
3					0	,	"	•	,	"
					0		"	•	,	"
			S (40 CFR 122.21(g)(		•		,,			,,
	2.2	affect the o	or operating wastewa discharges described i ntify each applicable p	n this appli	cation?		_	SKIP to Section		, mat oodid
		Brief	Brief Identification and Affec		ted Outfalls Source(s) of Ricch			Final Com	l Compliance Dates	
			cription of Project		tfall numbers)		Source(s) of D	ischarge	Required	Projected
Improvements										
	2.3	Have you that may a	attached sheets descr	ibing any a	additional wa	ater polli	ution control pro	ograms (or othe	er environmen	tal projects
		☐ Yes			✓ N					

EPA I	dentification	The state of the s		Form Approved 03/05/19				
Al	LD000645	5457	AL0003018	International Paper - Riverdale OMB N		OMB No. 2040-0004		
SECTION	N 3. SITE	DRAINAGE N	MAP (40 CFR 122.26(c)(1)(i)(A))					
Site Drainage Map	3.1		ached a site drainage map conta		mation to this applicatio	n? (See instructions for		
SECTION	I 4 POL	LUTANT SOU	RCES (40 CFR 122.26(c)(1)(i)(E	3))				
	4.1		mation on the facility's pollutant		elow			
		Outfall Number	Impervious Surface	Impervious Surface Area Total Su		e Area Drained dius of the facility)		
		DSN004	8	specify units Acres	13	specify units Acres		
		DSN005	12	specify units Acres	18	specify units  Acres		
		DSN006	29	specify units Acres	55	specify units Acres		
				specify units		specify units		
				specify units		specify units		
				specify units		specify units		
Pollutant Sources	4.3	Any liquid or solid chemical storage, usage, loading and unloading area in DSN004 drainage area ha containment or drains to a process sewer that flows to the effluent treatment system and DSN0. There are no chemical storage, use, or unloading areas that drain to DSN005. However, a firewater storage area can drain clean mill firewater to this outfall if the tank leaks or overflows. A diesel fuel storage tar to this tank, has secondary containment capable of holding 110% of its volume. The area where trucks paper for offsite shipment drains to DSN005.  Vehicular fuel and deinking chemicals in the liquid and solid form are stored, used, loaded and unload that drains to DSN006. Vehicular fuel tank has containment with valve that discharges to wastewates.  Provide the location and a description of existing structural and non-structural control measures to reduct stormwater runoff. (See instructions for specific guidance.)						
				Stormwater Treatm	nent	Coden		
		Outfall Number		Control Measures and	Treatment	Codes from Exhibit 2F-1 (list)		
			See Attachment					

EPA I	Identification	on Number	NPDES Permit Number	Facility	Name	Form Approved 03/05/ OMB No. 2040-00	
Α	LD00064	5457	AL0003018	International Pa	per - Riverdale		
CTIO	N 5. NO	N STORMWATER I	DISCHARGES (40 CFR 122.2	26(c)(1)(i)(C))	<u> </u>		
	5.1	presence of nor		application have been tested or evaluated for the at the outfalls identified as having non-stormwate 2.20 2D or 2E application			
			pe first and last name)	,	Official title		
		Michael Closson			Mill Manager		
		Signature			Date signed		
rges	5.2	Provide the testing	ng information requested in the	e table below.			
Non-Stormwater Discharges		Outfall Number	Description of Testing	Method Used	Date(s) of Testing	Onsite Drainage Poir Directly Observed During Test	
mwate			See Attachm	ent			
on-Stor							
ž							
CTIO			OR SPILLS (40 CFR 122.26)				
Significant Leaks or Spills	6.1		nificant leaks or spills of toxic ks or spills of toxic or hazardo				
	N 7 DIS	CHARGE INFORM	ATION (40 CFR 122.26(c)(1)	(i)(E))			
777	See th	e instructions to det	termine the pollutants and parts need to complete each table	ameters you are requi	red to monitor and, in to	ım, the tables you must	
natio	7.1		rce or new discharge?				
Discharge Information		☐ Yes → S estimated	ee instructions regarding subr		No → See instructions actual data.	regarding submission of	
arge	Tables	s A, B, C, and D			The state of the s		
sch	7.2	Have you comple	eted Table A for each outfall?				
ā		✓ Yes			No		

EPA Identification Number		NPDES Permit Number			Form Approved 03/05/19			
LD00064	5457	AL0003018	International	OMB No. 2040-0004				
7.3	wastewater?	subject to an effluent limitation gui	ideline (ELG) or eff					
	✓ Yes			No → SKIP to Iter	m 7.5.			
7.4								
	✓ Yes							
7.5	Do you know or have reason to believe any pollutants in Exhibit 2F–2 are present in the discharge?							
	✓ Yes			No → SKIP to Iter	m 7.7.			
7.6					are present in the discharge and			
	✓ Yes			No				
7.7	Do you qualify	y for a small business exemption	under the criteria sp	pecified in the Instru	ctions?			
	☐ Yes →	SKIP to Item 7.18.	<b>V</b>	No				
7.8	Do you know	or have reason to believe any pol	lutants in Exhibit 2	-3 are present in the	ne discharge?			
	✓ Yes			No → SKIP to Iter	m 7.10.			
7.9	Have you liste Table C?	ed all pollutants in Exhibit 2F-3 th	at you know or hav	e reason to believe	are present in the discharge in			
	✓ Yes			No				
7.10	Do you expec	ct any of the pollutants in Exhibit 2	F-3 to be discharg	ed in concentrations	of 10 ppb or greater?			
	☐ Yes		<b>V</b>	No → SKIP to Ite	m 7.12.			
7.11			for those pollutant	s in Exhibit 2F-3 tha	at you expect to be discharged in			
	☐ Yes			No				
7.12			phenol, or 2-methy	I-4,6-dinitrophenol to	be discharged in concentrations			
	☐ Yes		✓	No → SKIP to Ite	m 7.14.			
7.13				dentified in Item 7.1	2 that you expect to be			
	☐ Yes			No				
7.14	Have you pro discharge at o	vided quantitative data or an expl concentrations less than 10 ppb (	anation in Table C or less than 100 pp	for pollutants you ex b for the pollutants i	spect to be present in the dentified in Item 7.12)?			
	✓ Yes			No				
7.15	Do you know	or have reason to believe any po	llutants in Exhibit 2	F-4 are present in the	ne discharge?			
	☐ Yes		$\checkmark$	No → SKIP to Ite	m 7.17.			
7.16			you know or believe	e to be present in th	e discharge and provided an			
	☐ Yes			No				
7.17	Have you pro	ovided information for the storm ev	vent(s) sampled in	Table D?				
	✓ Yes			No				
	7.3  7.4  7.5  7.6  7.7  7.8  7.9  7.10  7.11  7.12  7.13  7.14  7.15	7.3 Is the facility swastewater?  Yes  7.4 Have you comindirectly in an Yes  7.5 Do you know Yes  7.6 Have you lister provided quar Yes  7.7 Do you qualify Yes  7.8 Do you know Yes  7.9 Have you lister Table C?  Yes  7.10 Do you expect of 100 ppb or Yes  7.12 Do you expect of 100 ppb or Yes  7.13 Have you prodischarged in Yes  7.14 Have you prodischarge at or Yes  7.15 Do you know Yes  7.16 Have you lister explanation in Yes  7.17 Have you prodischarge at or Yes  7.18 Have you prodischarge at or Yes  7.19 Have you lister explanation in Yes	7.3	T.3   Is the facility subject to an effluent limitation guideline (ELG) or eff wastewater?   Yes	International Paper - Riverdale			

EPA	EPA Identification Number		NPDES Permit Number		Facility Name		Form Approved 03/05/19			
A	ALD000645457		Α	AL0003018	Internation	nal Paper - Riverdale		OMB No. 2040-0004		
ъ	Used or Manufactured Toxics  7.18 Is any pollutant listed on Exhibits 2F–2 through 2F–4 a substance or a component of a substance used									
Discharge Information Continued	7.18	Is any pollutant listed on Exhibits 2F–2 through 2F–4 a substance or a component of a substance used or manufactured as an intermediate or final product or byproduct?  ☐ Yes  ☐ No → SKIP to Section 8.								
	7.10			1 " TODD " " "		INO 7 SKIP	io Section (	).		
	7.19	1.	itants below, ir	ncluding TCDD if applical 4.	DIE.	7.				
charge		2.		5.		8.				
Disc		3.		6.		9.				
SECTIO	N 8. BIO	LOGICAL TO	XICITY TESTI	NG DATA (40 CFR 122.	21(g)(11))					
Biological Toxicity Testing Data	8.1	any of your  Yes	discharges or	on a receiving water in re			e last three			
ě	8.2	Identify the t	ests and their	purposes below.						
ricity		Т	est(s)	Purpose of Te	est(s)	Submitted to NPI Permitting Autho		Date Submitted		
al Tox						☐ Yes ☐				
ologic						☐ Yes ☐	No			
Ö						☐ Yes ☐	No			
	9.1	consulting fi  Yes	rm?	reported in Section 7 (on characteristics)		No → SKIP				
	3.2	FIOVICE IIIIO	illiauon loi cac	Laboratory Nun		Laboratory Num	nher 2	Laboratory Number 3		
mation		Name of lab	oratory/firm	Eurofins Pensacola		ALS Environmental				
Contract Analysis Information		Laboratory a	address	3355 McLemore Driv Pensacola, FL 32514		1317 South 13th Av Kelso, WA 98626	enue			
		Phone num	ber	(850) 474-1001		(360) 577-7222				
		Pollutant(s)	analyzed	Form 2F Table A thro	ough Table	Form 2F Table B (pa	artial)			

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19
ALD000645457	AL0003018	International Paper - Riverdale	OMB No. 2040-0004

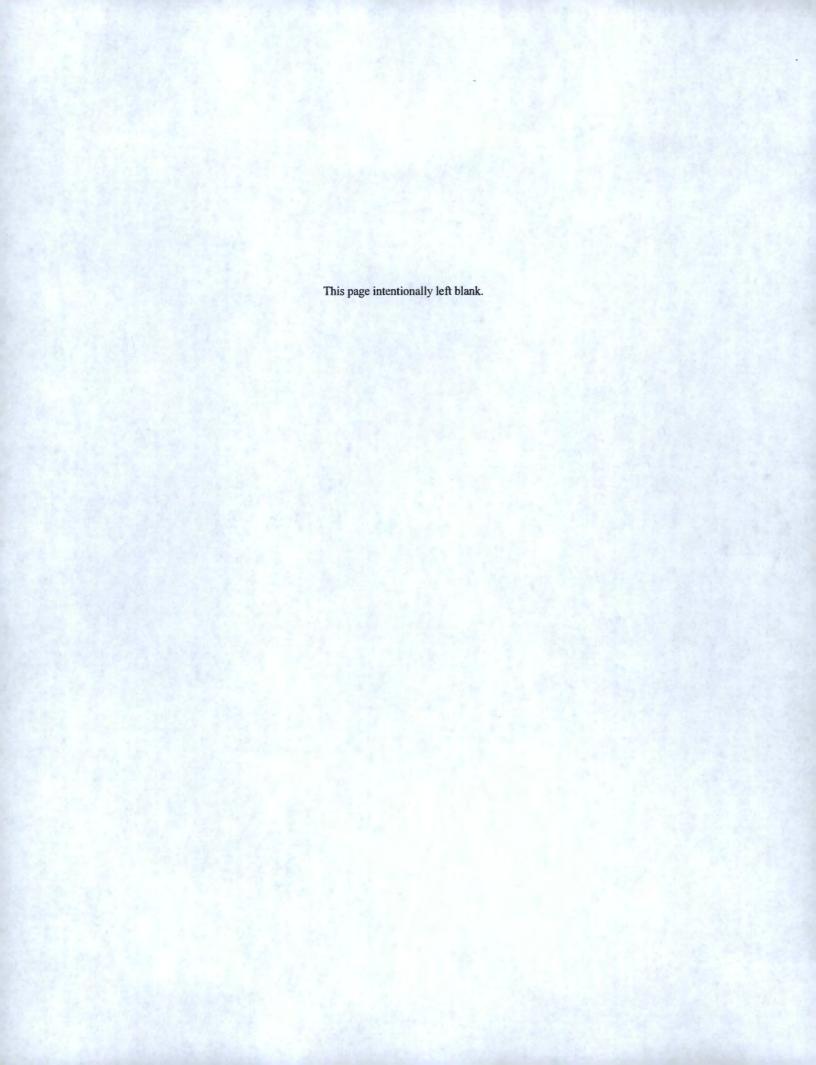
A	LD00004	13437	ALUUUSUI8 IIILEI	national Paper - Riverdale			
SECTIO	N 10. CH	IECKLIST AND CERT	IFICATION STATEMENT (40 CFR 1	22.22(a) and (d))			
	10.1	each section, specify all applicants are rec	mark the sections of Form 2F that you y in Column 2 any attachments that you juired to complete all sections or prov				
		Column 1		Column 2			
		Section 1	w/ attachments (e.g.,	responses for additional outfalls)			
		Section 2	w/ attachments				
		Section 3	w/ site drainage map				
		Section 4	w/ attachments				
		Section 5	w/ attachments				
ent		☑ Section 6	w/ attachments				
ateme		Section 7	☐ Table A	w/ small business exemption request			
on Sta			☐ Table B	w/ analytical results as an attachment			
Checklist and Certification Statement		<u>l</u>	☐ Table C	☐ Table D			
d Cer		Section 8	□ w/attachments				
list an		Section 9	w/attachments (e.g.,	responses for additional contact laboratories or firms)			
heck		Section 10					
0	10.2	Certification Staten	nent				
		I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.					
		Name (print or type t	irst and last name)	Official title			
primi		Michael Closson		Mill Manager			
		Signature		Date signed			

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number	Form Approved 03/05/19
ALD000645457	AL0003018	International Paper - Riverdale	DSN004	OMB No. 2040-0004

		Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm	Source of Information
	Pollutant or Parameter	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only; use codes in instructions)
1.	Oil and grease	<1.8 mg/L		-		1	
2.	Biochemical oxygen demand (BOD <sub>5</sub> )	9.7 mg/L	N/A	-	-	1	
3.	Chemical oxygen demand (COD)	55 mg/L	N/A	-	-	1	
4.	Total suspended solids (TSS)	10 mg/L	N/A			1	
5.	Total phosphorus	0.10 mg/L	N/A	-		1	
6.	Total Kjeldahl nitrogen (TKN)	1.7 mg/L	N/A	-		1	
7.	Total nitrogen (as N)	1.7 mg/L	N/A	-	-	1	
	pH (minimum)	7.9 5.U.		-		1	
8.	pH (maximum)	7.9 S.U.		_		1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Form 3510-2F (Revised 3-19)



EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number	$\neg$
ALD000645457	AL0003018	International Paper - Riverdale	DSN004	

Form Approved 03/05/19 OMB No. 2040-0004

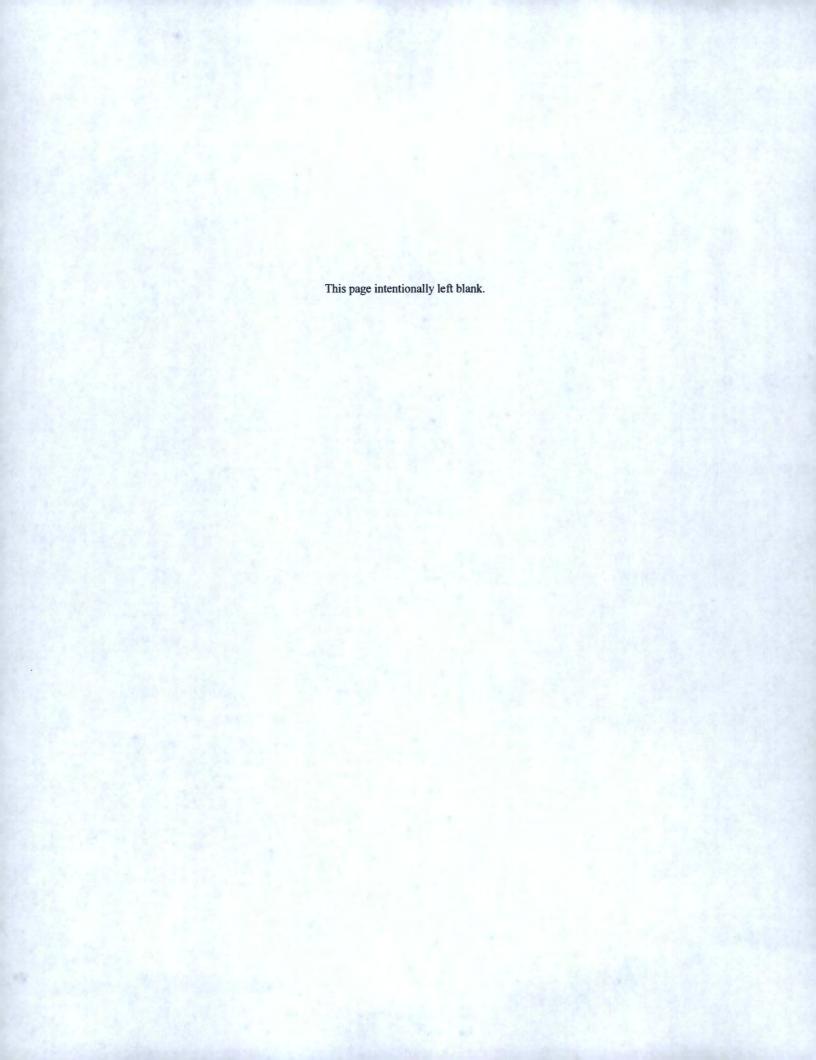
# TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))1

List each pollutant that is limited in an effluent limitation guideline (ELG) that 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.

	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm	Source of Information
Pollutant and CAS Number (if available)	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only, use codes in instructions)
Adsorbable Organic Halogens (AOX)	0.28 mg/L	N/A	-	-	1	
2,4,5-Trichlorophenol	<0.0038 mg/L	N/A			1	
2,4,6-Trichlorophenol	<0.0027 mg/L	N/A		***	1	
Pentachlorophenol	<0.0014 mg/L	N/A	_	-	1	
Chloroform	<0.00090 mg/L	N/A	_	-	1	
2,3,7,8-tetrachlorodibenzofuran (TCDF)	<0.30 pg/L	N/A		-	1	
2,3,7,8-tetrachlorodibenzo-P-dioxin (TCDD)	<0.38 pg/L	N/A	-	***	1	
3,4,6-Trichloroguaiacol	ND	N/A	-	-	1	
3,4,6-Trichlorocatechol	ND	N/A			1	
3,4,5-Trichlroguaiacol	ND	N/A	-	_	1	
3,4,5-Trichlorocatechol	ND	N/A	-		1	
Tetrachloroguaiacol	ND	N/A	-		1	
Tetrachlorocatechol	ND	N/A	-	***	1	
Trichlorosyringol	ND	N/A	-		1	
4,5,6-Trichloroguaiacol	ND	N/A	-	-	1	
2,3,4,6-Tetrachlorophenol	<0.0016 mg/L	N/A	-		1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Form 3510-2F (Revised 3-19)



EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number	
ALD000645457	AL0003018	International Paper - Riverdale	DSN004	

Form Approved 03/05/19 OMB No. 2040-0004

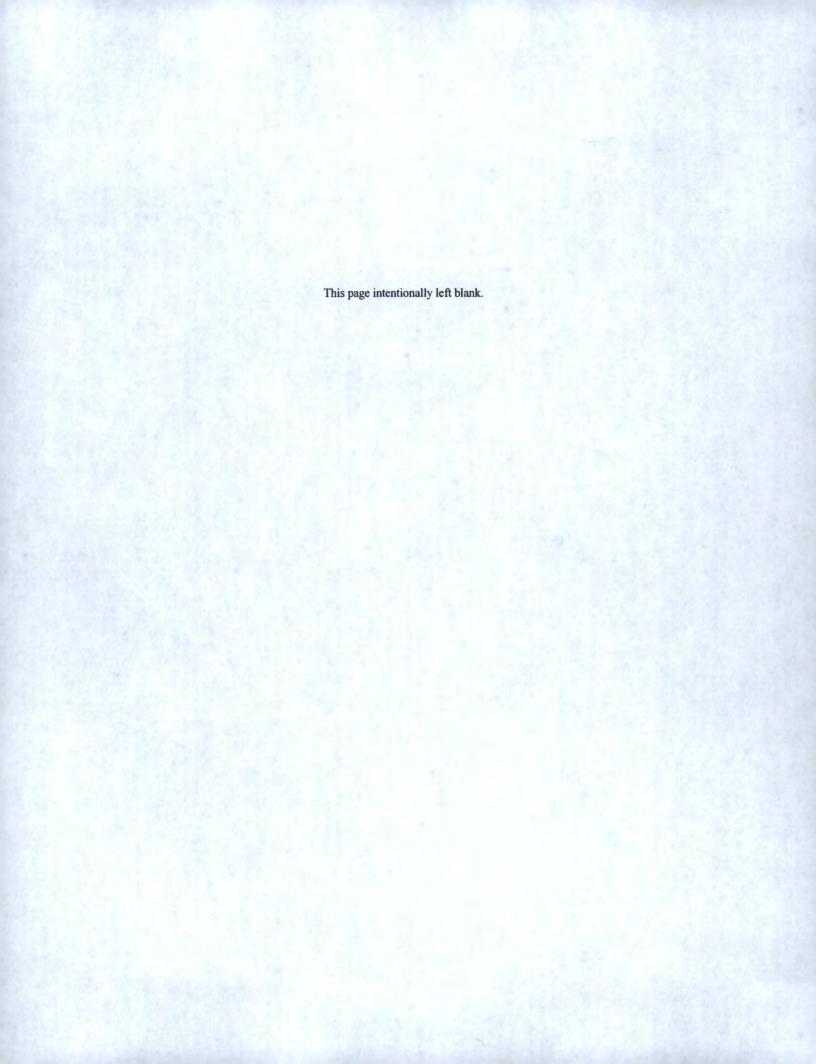
# TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))1

List each pollutant shown in Exhibits 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm	Source of Information
	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only; use codes in instructions)
Total Residual Chlorine	<0.057 mg/L	N/A	-	-	1	
Color, ADMI	64 Color Units	N/A	-	-	1	
Fecal Coliform	4200 CFU/100mL	N/A	_		1	
Total Organic Nitrogen (TON)	1.7 mg/L	N/A	-	400	1	
Ammonia as Nitrogen, NH3-N	0.037 mg/L	N/A	-	40	1	
Total Alpha	2.50 pCi/L	N/A	-	***	1	
Total Beta	2.52 pCi/L	N/A	**	••	1	
Total Radium	0.0426 pCi/L	N/A	-		1	
Total Radium 226	0.118 pCi/L	N/A	-	***	1	
Sulfate (as SO4)	17 mg/L	N/A	-		1	
Surfactants	0.11 mg/L	N/A		-	1	
Total Aluminum	0.17 mg/L	N/A	-	_	1	
Total iron	0.36 mg/L	N/A	-	**	1	
Total Magnesium	7.1 mg/L	N/A	_		1	
Total Zinc	0.012 mg/L	N/A	-	-	1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

EPA Form 3510-2F (Revised 3-19)



The state of the s				
EPA Identification Number	NPDES Permit Number	Facility name	Outfall Number	Form Approved 03/05/19
ALD000645457	AL0003018	International Paper - Riverdale	DSN004	OMB No. 2040-0004

TABLE D.	STORM EVENT	INFORMATION	(40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

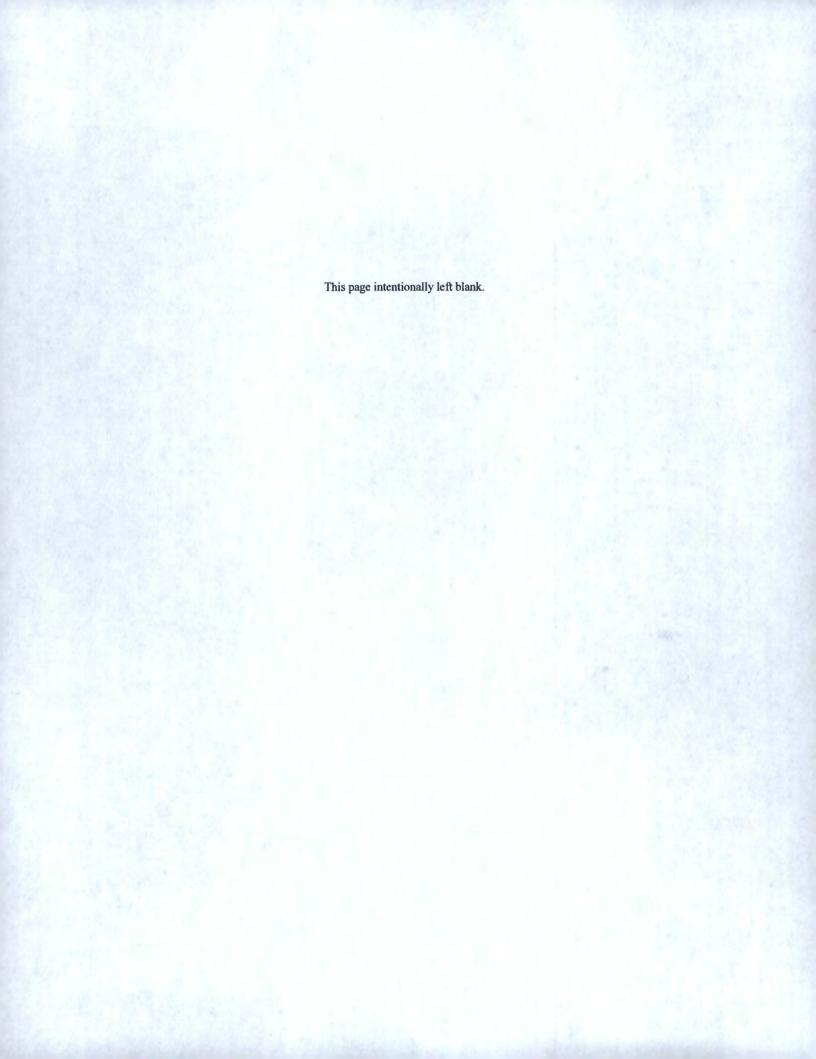
Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
08/29/2023					
	0.75-1 hour	1/4 inch	N/A	N/A	N/A
10/11/2023	1 hour	1/10 inch	N/A	N/A	N/A

Provide a description of the method of flow measurement or estimate.

Because the discharge at this outfall is a controlled release, and stormwater is collected and stored for a period greater than 24 hours prior to discharge, a composite sample was not required.

	EPA Identification Number NF ALD000645457	PDES Permit Number AL0003018	Facility Nam International Paper		Outfall Number DSN005		Form Approved 03/05/19 OMB No. 2040-000
	BLE A. CONVENTIONAL AND NON CON I must provide the results of at least one al				See instructions for a	dditional details and requ	irements
Tou	Thirds provide the results of at least one a	Maximum Dai	ly Discharge	Average Daily	y Discharge		Source of Information
	Pollutant or Parameter	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Number of Storm Events Sampled	(new source/new dischargers only; use codes in instructions)
1.	Oil and grease	<1.5 mg/L		-		1	
2.	Biochemical oxygen demand (BODs)	3.4 mg/L	N/A	-	40	1	
3.	Chemical oxygen demand (COD)	25 mg/L	N/A	_	_	1	
4.	Total suspended solids (TSS)	19 mg/L	N/A	_		1	
5.	Total phosphorus	0.14 mg/L	N/A	-	-	1	
6.	Total Kjeldahl nitrogen (TKN)	0.96 mg/L	N/A			1	
7.	Total nitrogen (as N)	1.4 mg/L	N/A	-	60	1	
	pH (minimum)	7.4 S.U.		-		1	
8.	pH (maximum)	7.4 S.U.		- 1 L		1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALD000645457	AL0003018	International Paper - Riverdale	DSN005

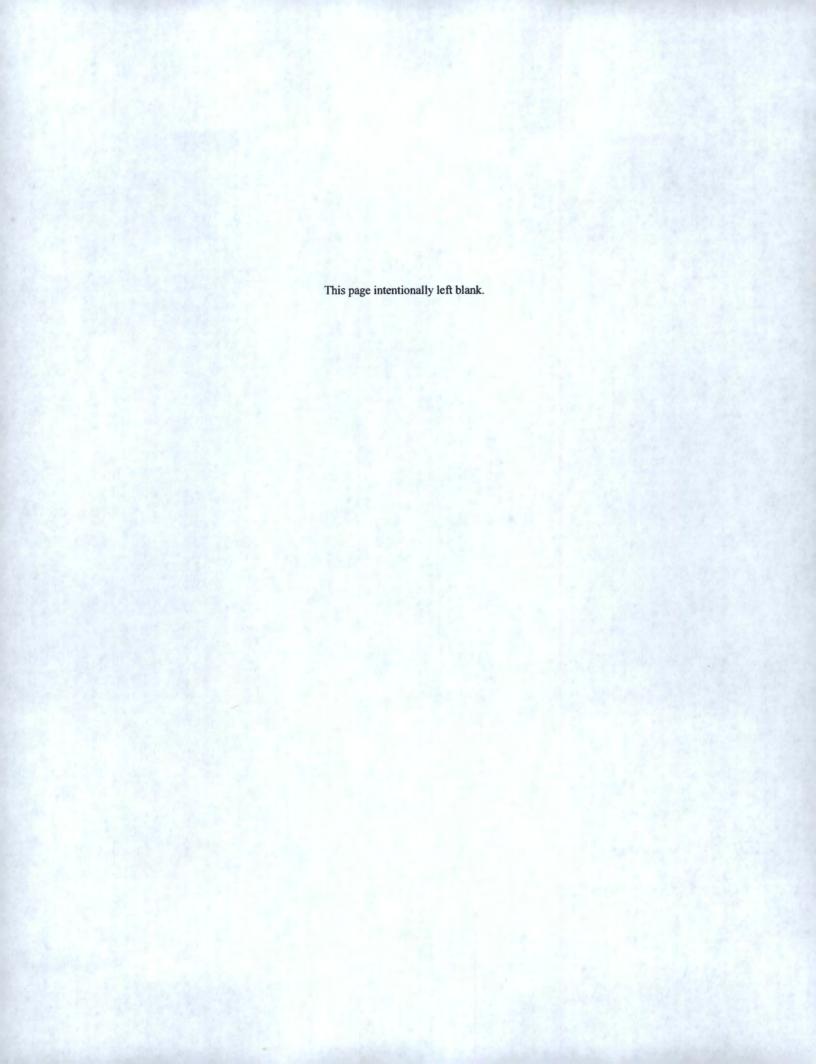
Form Approved 03/05/19 OMB No. 2040-0004

# TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))1

List each pollutant that is limited in an effluent limitation guideline (ELG) that 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.

	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm	Source of Information
Pollutant and CAS Number (if available)	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only; use codes in instructions)
Adsorbable Organic Halogens (AOX)	0.10 mg/L	N/A	-	-	1	
2,4,5-Trichlorophenol	<0.0035 mg/L	N/A	-	-	1	
2,4,6-Trichlorophenol	<0.0024 mg/L	N/A	_		1	
Pentachlorophenol	<0.0013 mg/L	N/A	-		1	
Chloroform	0.0027 mg/L	N/A	-		1	
2,3,7,8-tetrachlorodibenzofuran (TCDF)	<0.28 pg/L	N/A	-		1	
2,3,7,8-tetrachlorodibenzo-P-dioxin (TCDD)	<0.46 pg/L	N/A	-	-	1	
3,4,6-Trichloroguaiacol	ND	N/A	-		1	
3,4,6-Trichlorocatechol	ND	N/A	-		1	
3,4,5-Trichloroguaiacol	ND	N/A		-	1	
3,4,5-Trichlorocatechol	ND	N/A	-	-	1	
Tetrachloroguaiacol	ND	N/A		-	1	
Tetrachlorocatechol	ND	N/A	-	-	1	
Trichlorosyringol	ND	N/A	-	-	1	
4,5,6-Trichloroguaiacol	ND	N/A	-	••	1	
2,3,4,6-Tetrachlorophenol	<0.0015 mg/L	N/A	-	-	1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALD000645457	AL0003018	International Paper - Riverdale	DSN00S

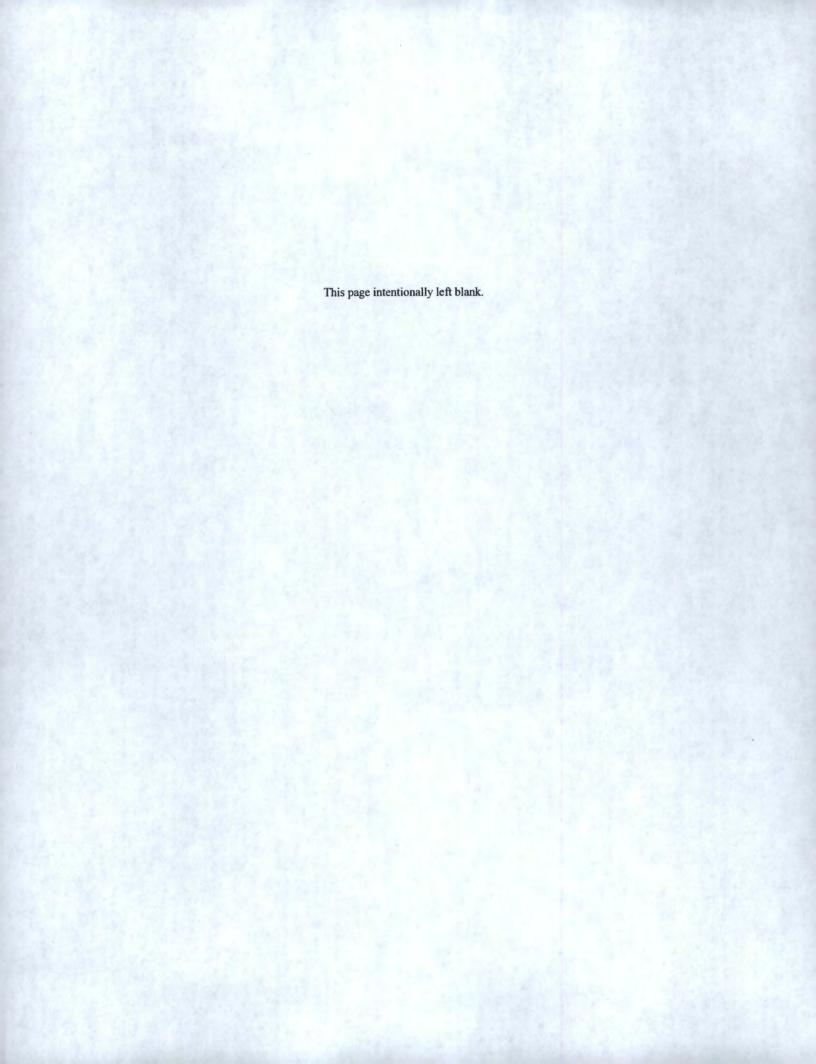
TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B) and (vii))1 List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

	Maximum Daily Discharge (specify units)		Average Daily Discharge (specify units)		Number of Storm	Source of Information
Pollutant and CAS Number (if available)	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only; use codes in instructions)
Total Residual Chlorine	<0.057 mg/L	N/A	-		1	
Color, ADMI	66 Color Units	N/A	-	-	1	
Fecal Coliform	38000 CFU/100mŁ	N/A		_	1	
Total Organic Nitrogen (TON)	0.93 mg/L	N/A	-	-	1	
Ammonia as Nitrogen, NH3-N	0.059 mg/L	N/A		-	1	
Total Alpha	0.560 pCi/L	N/A		-	1	
Total Beta	2.02 pCi/L	N/A	-	-	1	
Total Radium	0.222 pCi/L	N/A	-	-	1	
Total Radium 226	0.148 pCi/L	N/A	-	-	1	
Sulfate (as SO4)	22 mg/L	N/A	-	-	1	
Surfactants	0.14 mg/L	N/A	_	-	1	
Total Aluminum	0.16 mg/L	N/A	-	-	1	
Total Iron	0.17 mg/L	N/A	-	-	1	
Total Magnesium	3.2 mg/L	N/A		_	1	
Total Zinc	0.19 mg/L	N/A	_	-	1	

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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Form Approved 03/05/19 OMB No. 2040-0004



EPA Identification Number	NPDES Permit Number	Facility name	Outfall Number	Form Approved 03/05/19
ALD000645457	AL0003018	International Paper - Riverdale	DSN005	OMB No. 2040-0004

# TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (In hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
08/29/2023					
	0.75-1 hour	1/4 inch	N/A	N/A	N/A
10/11/2023	1 hour	1/10 inch	N/A	N/A	N/A

Provide a description of the method of flow measurement or estimate.

Because the discharge at this outfall is a controlled release, and stormwater is collected and stored for a period greater than 24 hours prior to discharge, a composite sample was not required.

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number	Form Approved 03/05/19
ALD000645457	AL0003018	International Paper - Riverdale	DSN006	OMB No. 2040-0004

		Maximum Dail (specify)		Average Daily (specify		Number of Storm	Source of Information (new source/new dischargers only, use codes in instructions)
	Pollutant or Parameter	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	
1.	Oil and grease	<1.5 mg/L		_		1	
2.	Biochemical oxygen demand (BOD5)	2.1 mg/L	N/A	-		1	
3.	Chemical oxygen demand (COD)	29 mg/L	N/A	-		1	
4.	Total suspended solids (TSS)	<5.0 mg/L	N/A			1	
5.	Total phosphorus	0.28 mg/L	N/A	_	-	1	
6.	Total Kjeldahl nitrogen (TKN)	0.75 mg/L	N/A	-		1	
7.	Total nitrogen (as N)	0.75 mg/L	N/A	-	-	1	
0	pH (minimum)	7.7 S.U.		-		1	
8.	pH (maximum)	7.7 S.U.		_		1	

Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
ALD000645457	AL0003018	International Paper - Riverdale	DSN006

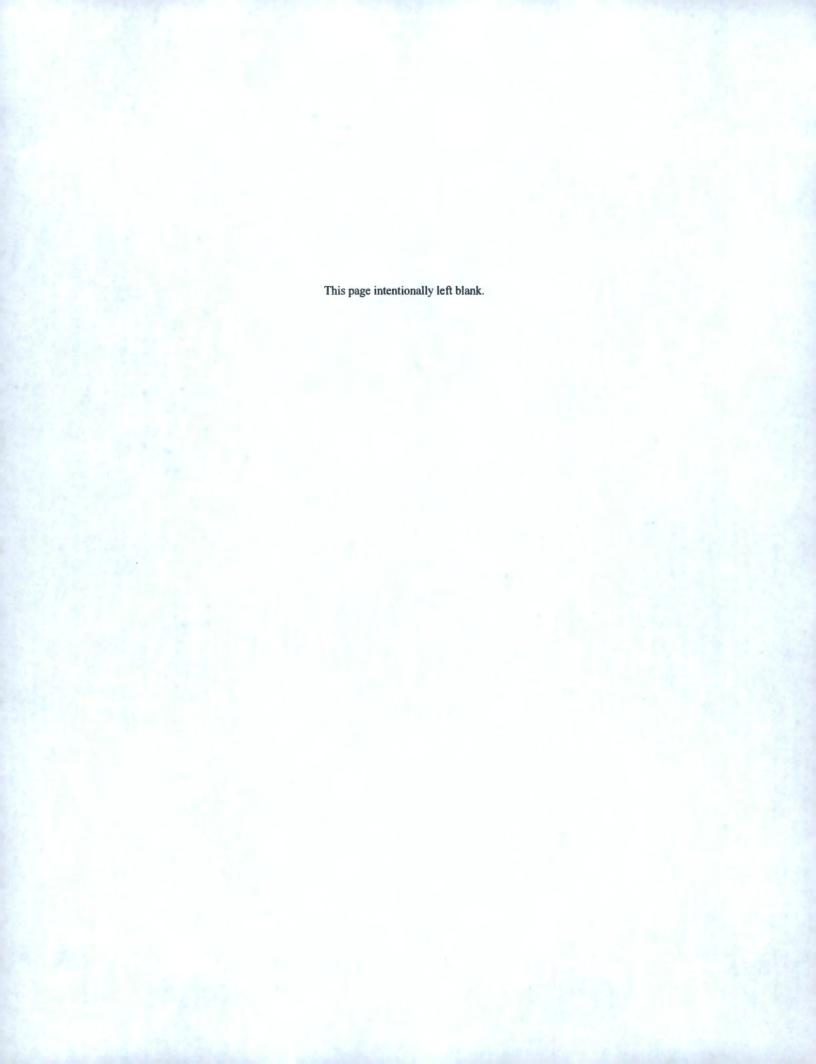
Form Approved 03/05/19 OMB No. 2040-0004

# TABLE B. CERTAIN CONVENTIONAL AND NON CONVENTIONAL POLLUTANTS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(A))<sup>1</sup>

List each pollutant that is limited in an effluent limitation guideline (ELG) that 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.

	Maximum Dail (specify		Average Daily (specify		Number of Storm	Source of Information (new source/new dischargers only; use codes in instructions)	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled		
Adsorbable Organic Halogens (AOX)	0.079 mg/L	N/A	-		1		
2,4,5-Trichlorophenol	<0.0035 mg/L	N/A	_	_	1		
2,4,6-Trichlorophenol	<0.0024 mg/L	N/A		**	1		
Pentachlorophenol	<0.0013 mg/L	N/A	_		1		
Chloroform	<0.00090 mg/L	N/A	-		1		
2,3,7,8-tetrachlorodibenzofuran (TCDF)	<0.26 pg/L	N/A			1		
2,3,7,8-tetrachlorodibenzo-P-dioxin (TCDD)	<0.54 pg/L	N/A	-	-	1		
3,4,6-Trichloroguaiacol	ND	N/A	-		1		
3,4,6-Trichlorocatechol	ND	N/A	-	t-refe	1		
3,4,5-Trichlroguaiacol	ND	N/A	-	-	1		
3,4,5-Trichlorocatechol	ND	N/A	-	-	1		
Tetrachloroguaiacol	ND	N/A	-	-	1		
Tetrachlorocatechol	ND	N/A	-		1		
Trichlorosyringol	ND	N/A			1		
4,5,6-Trichloroguaiacol	ND	N/A	-	_	1		
2,3,4,6-Tetrachlorophenol	<0.0015 mg/L	N/A	-	-	1		

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



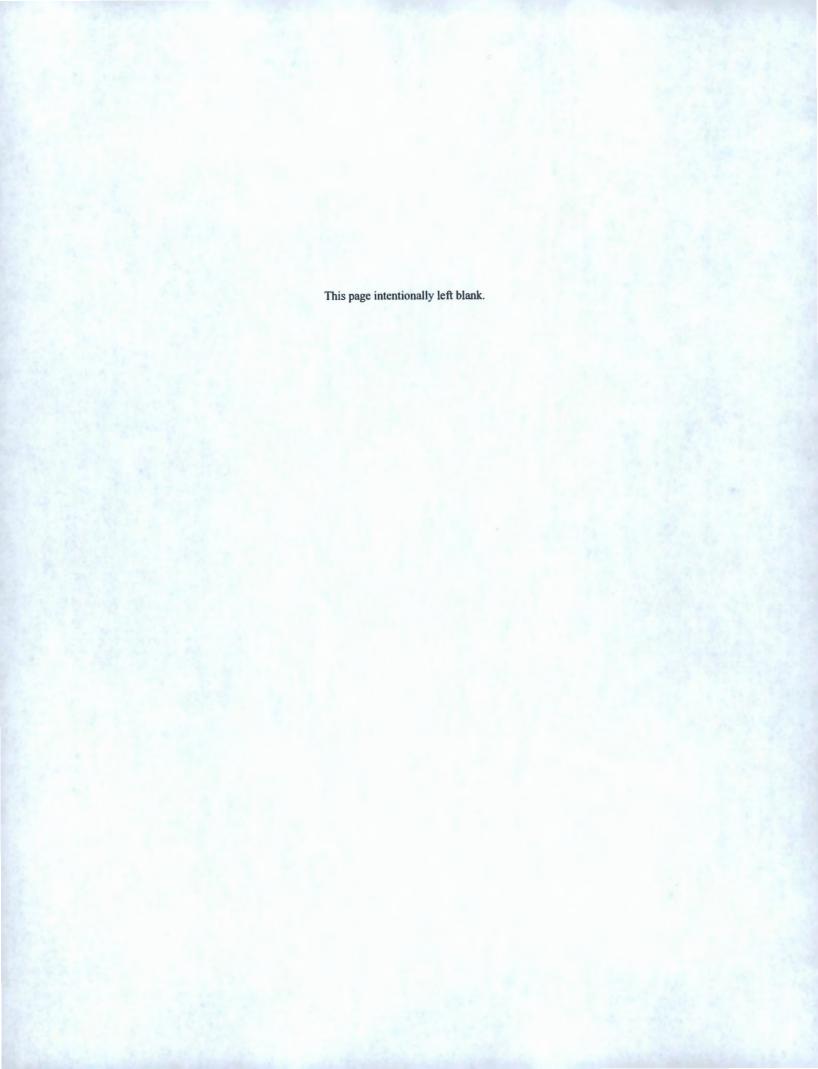
EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number	Form Approved 03/05/19
ALD000645457	AL0003018	International Paper - Riverdale	DSN006	OMB No. 2040-0004

# TABLE C. TOXIC POLLUTANTS, CERTAIN HAZARDOUS SUBSTANCES, AND ASBESTOS (40 CFR 122.26(c)(1)(i)(E)(4) and 40 CFR 122.21(g)(7)(vi)(B)) and (vii))1

List each pollutant shown in Exhibits 2F–2, 2F–3, and 2F–4 that you know or have reason to believe is present. Complete one table for each outfall. See the instructions for additional details and requirements.

	Maximum Dail (specify		Average Daily (specify		Number of Storm	Source of Information	
Pollutant and CAS Number (if available)	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 30 Minutes	Flow-Weighted Composite	Events Sampled	(new source/new dischargers only; use codes in instructions)	
Total Residual Chlorine	0.060 mg/L	N/A		***	1		
Color, ADMI	42 Color Units	N/A		8949	1		
Fecal Coliform	4300 CFU/100mL	N/A	-	8040	1		
Total Organic Nitrogen (TON)	0.49 mg/L	N/A	-	***	1		
Ammonia as Nitrogen, NH3-N	0.14 mg/L	N/A			1		
Total Alpha	1.32 pCi/L	N/A	-	440	1		
Total Beta	5.52 pCi/L	N/A	-	***	1		
Total Radium	0.123 pCi/L	N/A	_	**	1		
Total Radium 226	0.0368 pCi/L	N/A		***	1		
Sulfate (as SO4)	13 mg/L	N/A	_	-	1		
Surfactants	0.10 mg/L	N/A	000	444	1		
Total Aluminum	0.073 mg/L	N/A	-	-	1		
Total Iron	0.19 mg/L	N/A		***	1		
Total Magnesium	3.8 mg/L	N/A		-	1		
Total Zinc	<0.0088 mg/L	N/A	-		1		

<sup>&</sup>lt;sup>1</sup> Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).



EPA Identification Number NPDES Permit Number Facility name Outfall Number

ALD000645457 AL0003018 International Paper - Riverdale DSN006

Form Approved 03/05/19 OMB No. 2040-0004

# TABLE D. STORM EVENT INFORMATION (40 CFR 122.26(c)(1)(i)(E)(6))

Provide data for the storm event(s) that resulted in the maximum daily discharges for the flow-weighted composite sample.

Date of Storm Event	Duration of Storm Event (in hours)	Total Rainfall During Storm Event (in inches)	Number of Hours Between Beginning of Storm Measured and End of Previous Measurable Rain Event	Maximum Flow Rate During Rain Event (in gpm or specify units)	Total Flow from Rain Event (in gallons or specify units)
08/29/2023					
	0.75-1 hour	1/4 inch	N/A	N/A	N/A
10/11/12	1 hour	1/10 inch	N/A	N/A	N/A
10/11/12	11001	2) 20 11011	47.		

Provide a description of the method of flow measurement or estimate.

Because the discharge at this outfall is a controlled release, and stormwater is collected and stored for a period greater than 24 hours prior to discharge, a composite sample was not required.

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# U.S. EPA Form 2F Item 4.3:

#### Structural control measures:

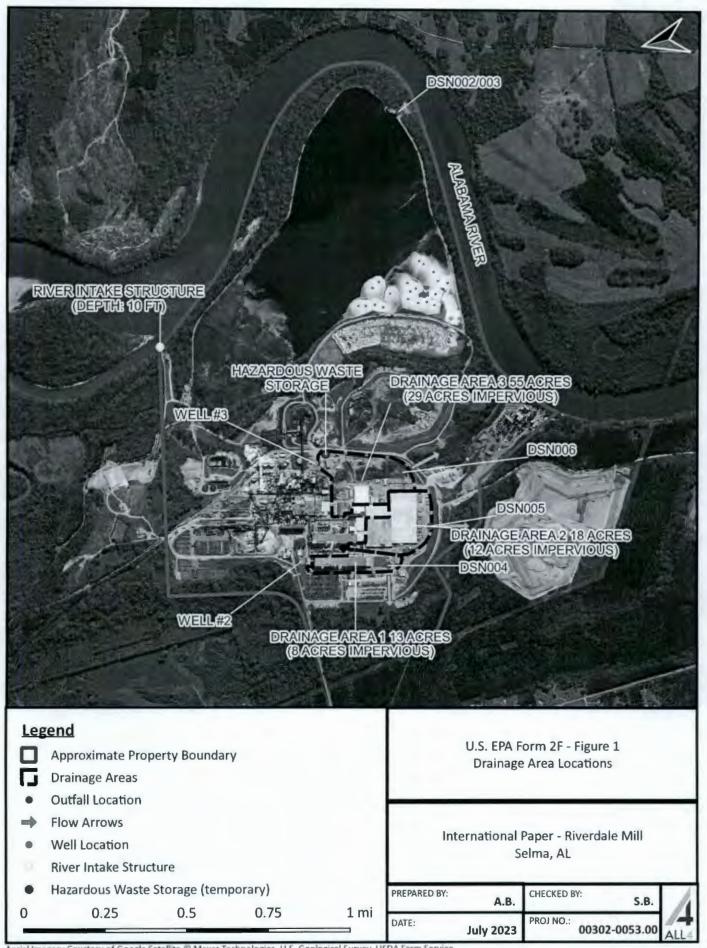
- Outfalls are equipped with valves that remain closed to collect stormwater from the Mill. The stormwater that is collected behind the valves is visually inspected for oil or other contamination prior to release. If contamination exists, the stormwater is not released until contamination is removed.
- The vehicular fuel area has secondary containment capable of containing 110% of the largest tank and stormwater from this area is routed to the effluent treatment system.
- The fire pump diesel fuel storage tank is contained in an enclosed, non-valved concrete containment capable of containing the total contents of the tank.

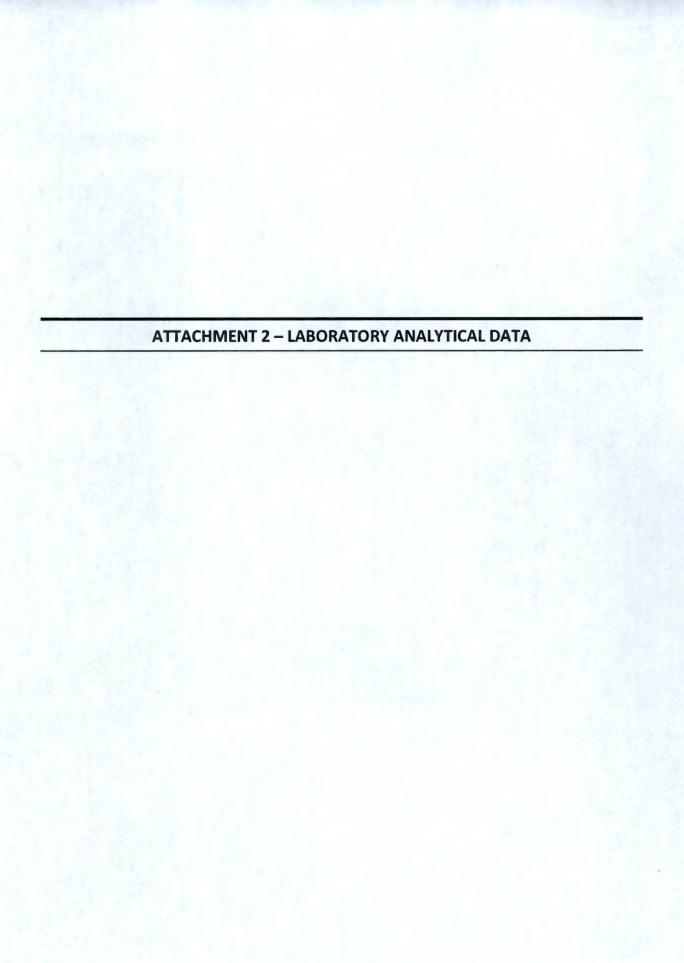
#### Non-structural control measures:

- Raw materials, manufactured products, waste materials, and by-products entering or exiting the Mill by truck are transported over Mill roads that pass through the area served by the outfall.
- All tank trucks carrying liquids onto the Mill roads are visually inspected for leaks prior to entering
  or exiting through the Mill gates.
- Stormwater is inspected and not released if potential contamination is observed.

# U.S. EPA Form 2F, Section 5 Item 5.2 Testing Information International Paper - Riverdale, AL Mill

Outfall Number	Description of Testing Method Used	Dates of Testing	Onsite Drainage Points Directly Observed During Test
DSN004	Stormwater collection basins 004, 005 and 006 were monitored on 12/26/2017 during dry weather for non-		
DSN005	stormwater drainage and were dry. Ditches and swells leading to the unnamed tributary of the Alabama River	12/26/2017	Stormwater Collection Basins
DSN006	where outfalls 004,005 and 006 drain were monitored during dry weather and were also found to be dry.		







@KR Dmultopmi dms k @KR Font o TR@-Bnop 0206 Rnt sg 02sg @udmt d J dk: n+V @87515

T:\*025/4666111 F:\*025/5250/57 www.alsglobal.com

Nbsnadq16+1/12

Analytical Report for Service Request No: J1200646

Lr-B`q`k Od`qrnm Hnnsdqm`shnm`kO`odq 5/0 Bntmsx Qn`c 67 Rdkl`+@K 256/2

RE: 1653A Grab Samples / Riverdale Cluster

Cd' qL r-Od' q nm+

Dmbknrdc `qd sgd qdrt ker nesgd r`l okd'r (rt al kædc sn nt qk anq snox Nbsnadq02+1/12 Enqxnt qqdedqmbd+sgdrd `m`kxrdr g`ud addm`rrki mdc nt qrdqulbd qdpt drsmt l adq**K2311757.** 

@mikkrdrvdqdodqnd dc`bbnqchmf snntqkianq`snox@MDK@D,`ooqnudcpt`khsx`rrtq`mbdoqnfq`l-SgdsdrsqdrtksrlddsqdpthqdldmsrnesgdbtqqdmsMDK@Drs`mc`qcr+vgdqd`ookbb`akd+`mcdwbdos`rmnsdchmsgdkianq`snoxb`rdm`qq`shudoqnuhcdc-Enq`rodbhebbkarsneMDK@D,`bbqdchsdc`m`kksdr+qdedqsn sgdbdqshebb`shnmrrdbshnm`svvv-`krfkna`kbnl-@kkqdrtksr`qdhmsdncdcsn ad bnmrhodqdchm sgdhqdmshqdsx+`mc@KRFqntoTR@Bnqb-ca`@KRDmuhqnmldms`k'@KR(hrmnsqdronmrhakdenqtrdnekdrrsg`msgdbnlokdsdqdonqs-Qdrtksr`ookxnmkxsn sgdhsdlrrtalhsedcsn sgdkianq`snoxenq`m`kxrhr`mchmchuhct`khsdlr'r`lokdr(`m`kxydc+`rkbrsdchmsgdqdonqs-

Old'rd bnms bsl d hexnt g'ud 'mx pt drshnmr-Lx dwsdmrhnmhr 2266-Xnt I 'x 'krn bnms bsl d uh'dl 'kr's Rxcmdx-V nke? 'krf kna'kbnl -

Qdrodbset kkx rt al hsedc+

ALS Group USA, Corp. dba ALS Environmental

Rxcmdx @V nle/ OgnidbsL`m`f dq



@KR Dmultopmi dms k @KR F opt o TR@-Bnop 0206 Rnt sg 02sg @udmt d Jdk n+V @87515

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Acronyms
Qualifiers
State Certifications, Accreditations, And Licenses
Case Narrative
Chain of Custody
Chlorinated Phenolic Organic Compounds

#### **Acronyms**

ASTM American Society for Testing and Materials

A2LA American Association for Laboratory Accreditation

CARB California Air Resources Board

CAS Number Chemical Abstract Service registry Number

CFC Chlorofluorocarbon
CFU Colony-Forming Unit

DEC Department of Environmental Conservation

DEQ Department of Environmental Quality

DHS Department of Health Services

DOE Department of Ecology
DOH Department of Health

EPA U. S. Environmental Protection Agency

ELAP Environmental Laboratory Accreditation Program

GC Gas Chromatography

GC/MS Gas Chromatography/Mass Spectrometry

LOD Limit of Detection

LOQ Limit of Quantitation

LUFT Leaking Underground Fuel Tank

M Modified

MCL Maximum Contaminant Level is the highest permissible concentration of a substance

allowed in drinking water as established by the USEPA.

MDL Method Detection Limit
MPN Most Probable Number
MRL Method Reporting Limit

NA Not Applicable
NC Not Calculated

NCASI National Council of the Paper Industry for Air and Stream Improvement

ND Not Detected

NIOSH National Institute for Occupational Safety and Health

POL Practical Quantitation Limit

RCRA Resource Conservation and Recovery Act

SIM Selected Ion Monitoring

TPH Total Petroleum Hydrocarbons

tr Trace level is the concentration of an analyte that is less than the PQL but greater than or

equal to the MDL.

#### **Inorganic Data Qualifiers**

- The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOO/LOD is elevated due to a matrix interference.
- X See case narrative
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

#### **Metals Data Qualifiers**

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

#### **Organic Data Qualifiers**

- The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- I The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative
- O See case narrative. One or more quality control criteria was outside the limits.

# Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

# ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	_
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.



# Case Narrative

ALS Environmental—Kelso Laboratory 1317 South 13th Avenue, Kelso, WA 98626 Phone (360)577-7222 Fax (360)636-1068 www.alsglobal.com

Service Request: K2311757

**Date Received: 10/13/2023** 



Client:

International Paper

Project:

1653A Grab Samples

Sample Matrix: Water

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

#### Sample Receipt

Three water samples were received for analysis at ALS Environmental on 10/13/2023. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

### Semivolatiles by GC/MS:

No significant anomalies were noted with this analysis.

	**	James of	Wale			
Approved by	<i>.</i>			Date	10/27/2023	_



# Chain of Custody

ALS Environmental—Kelso Laboratory 1317 South 13th Avenue, Kelso, WA 98626 Phone (360)577-7222 Fax (360)636-1068 www.alsglobal.com

Λ			133	37	66	6		CI			766	008	SR#coc setof
(ALS) Enuir	onm	ental	13	17 Sout	h 13th	Ave, I	Kelso,	WA 96	9626 (	Phone	(360) 577-7222 / 800-695-7222 Isolobal com	2 / FAX (360) 636-1068	COC#Page 1 of 1
Project Name 1635A GribSing Project Manager Carla Pearson	ples Project N	lumber:		8	300							1257	
Company International Repleadoress. City. State 601 (county Par Phone # - 418 - 5354 Sampler Signature  And Apple		losa, AL 36703 es. Hillips O. joure Privide Name Ver Phillips	r, Cen	NUMBER OF CONTAINERS	1653A / CHLOR_PHEN		2	9		9	Remarks	Y2311757	
CLIENT SAMPLE ID	LABID	SAMPLING Date Time State	Matrix										
1. DSN 004		Will 4: lus Grab	40	2	X								
2. DS/005		Will 4:00 Grab	W	2	X								
3.DSN 006		W11 3:452, Grab	W	2	Х								
5.						Н			$\dashv$	$\dashv$			
6.										$\dashv$			
7.				_									
3.													
9.	***************************************												
10.													
Report Requirements	Inv	oice Information									0:-	cle which metals are to be analyzed	
Routine Report: Method Blank, Surrogate, as required	P.O.#_ Bill To		_								Ba Be B Ca Cd Cd	o Cr Cu Fe Pb Mg Mn Mo Ni K	
II. Report Dup., MS, MSD as required									-			Co Cr Cu Fe Pb Mg Mn Mo Ni	
III. CLP Like Summery (no raw data)	2	ound Requirement	nts	pecia	Inst	ructi	ons/(	Com	men	ts:	Indicate	State Hydrocarbon Procedure: AK (	CA WI Northwest Other (Circle One)
IV. Data Validation Report		tendard											
Relinquished By:		Received By:	$T^{L}$	Re	ling	uish	ned	Ву:		T	Received By:	Relinquished B	y: Received By:
Signature Am LIVIIII	Signature	of hith	Sign	ature	_			_		Si	gnature	Signature	Signature
Printed Name /	Printed.M	igh Smith	Print	ed N	ame					Pr	inted Name	Printed Name	Printed Name
IP. Riverdale		5)	Firm				-			Fi	m	Firm	Firm
Date/Time (1/12/13 ' 8'000m		10/13/17 A900	Date	Time	3					Da	ate/Time	Date/Time	Date/Time

Reviewed: 12/9/2022

	ractions	1 page	Cooler Receipt	allu r		Sen	rice Request	K23 11	157		M1/A
Received: 10	113/23	Opened:	10/13/23	By:	H	9	_Unloaded:	VOL 13	3 Z3 By:	H3	
. Samples we	re received via?	USPS	Fed Ex	UPS	D	HL	PDX	Cour	ier Hand De	livered	
2. Samples we	re received in: (ci	rcle)	ooler Box	En	velope		Other			NA	
. Were custod	y seals on coolers	37	NA V N	If yes, he	ow man	y and v	where?   ar	tran	ot	_	
If present, w	ere custody seals	intact?	Y N	lf presen	t, were	they sig	gned and date	d?	Q	) N	
					Out o	ftemp	PM				
Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / N	A !	Indicate			temp	Tracking Num	ber NA	Filed
8.0	5.2	IRO6		_				\î	F45M844 01	6592563	9
,							-				
	rature Blank pres		NA (Y) N e sample bottle contair						e column above:		
					n me co	oici, ii	otate in the co	iwini Sa	VI. 250		
			cified temperature ran			# -L	d aiG. ab	- 7014	NA Y	N	
			y as collected? If not, n				e and noury u	E PM.	NA Y	N	
ii applicable, u	ssue samples were	received:	Frozen Partially TI	awea	Thawe	ea .			, %		
6. Packing ma	iterial: Inserts	Baggies Bu	bble Wrap Gel Pack	s Wet	Ice D	ry Ice	Sleeves				
7. Were custo	ly papers properly	filled out (in)	, signed, etc.)?						NA	N	
	es received in goo								NA X	N N	
			s, preservation, etc.)?						NA Y	N N	
	pie labels and tags			anto indi	Chatado				NA OF		
			umes received for the t EN SOP) received at th			19 Indi	cata in the tal	le helow	(NA) Y	N	
			c? Indicate in the table		riate pr	1 i Irmai	care in the int	ne below	(NA) Y	N	
		mout neadspac	c: Indicate in the table	e Delow.					V Y	N	
14. Was C12/R		a the mathed on	nacified time limit? If	not motor	a the er	ror hel	out and notify	the DM	(NA) Y	N	
-			pecified time limit? If					HIC FIVE			
16. Were 100m	I sterile microbio	ogy bottles fil	led exactly to the 100m	mark?	( N	AJ)	Y N		Underfilled	Overfille	,
Sa	mple ID on Bo	ttle	Sample	ID on	coc				Identified by:		
											********
								1		1 1	
	Sample ID		Bottle Count Bottle Type	Head-	Broke	рH	Reagent	Volume	Reagent Lot Number	Initials	Time
		***************************************									
M-4 D/	repancies, Rese	1									

SOP: SMO-GEN

G:\SMO\2022 Forms



# **Chlorinated Phenols**

ALS Environmental—Kelso Laboratory 1317 South 13th Avenue, Kelso, WA 98626 Phone (360)577-7222 Fax (360)636-1068 www.alsglobal.com

# **Analytical Results**

Service Request: K2311757
Date Collected: 10/11/2023 Client: International Paper Project: Sample Matrix: 1653A Grab Samples/Riverdale Cluster

Water

EPA Method 1653A

**Date Received:** 10/13/2023

Chlorinated Phenolic Organic Compounds

Sample Name: Lab Code: Units: ug/L (ppb) Basis: NA DSN004

K2311757-001

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
3.4.6-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
3,4,5-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
3,4,6-Trichlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
3,4,5-Trichlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
Trichlorosyringol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
4,5,6-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
Tetrachloroguaiacol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
Tetrachlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	

### **Analytical Results**

Service Request: K2311757
Date Collected: 10/11/2023 Client: International Paper Project:

1653A Grab Samples/Riverdale Cluster Sample Matrix: **Date Received:** 10/13/2023

EPA Method 1653A Chlorinated Phenolic Organic Compounds

Sample Name: DSN005 Units: ug/L (ppb) Lab Code: Basis: NA K2311757-002

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
3,4,6-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
3,4,5-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
3,4,6-Trichlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
3,4,5-Trichlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
Trichlorosyringol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
4.5.6-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
Tetrachloroguaiacol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
Tetrachlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	

# **Analytical Results**

Service Request: K2311757
Date Collected: 10/11/2023
Date Received: 10/13/2023 Client: International Paper Project: Sample Matrix: 1653A Grab Samples/Riverdale Cluster

Water

EPA Method 1653A

Chlorinated Phenolic Organic Compounds

Sample Name: DSN006 Units: ug/L (ppb) Lab Code: Basis: NA K2311757-003

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
3.4.6-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
3,4,5-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
3.4.6-Trichlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
3,4,5-Trichlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
Trichlorosyringol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
4.5.6-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
Tetrachloroguaiacol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
Tetrachlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	

# **Analytical Results**

Service Request: K2311757 Date Collected: NA Client: International Paper

Project: 1653A Grab Samples/Riverdale Cluster Sample Matrix: Date Received: NA Water

EPA Method 1653A

Chlorinated Phenolic Organic Compounds

Sample Name: Lab Code: Method Blank Units: ug/L (ppb)

Basis: NA KQ2318522-01

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
3,4.6-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
3,4,5-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
3,4,6-Trichlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
3,4,5-Trichlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
Trichlorosyringol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
4,5,6-Trichloroguaiacol	METHOD	1653A	2.5	1	10/19/2023	10/25/2023	ND	
Tetrachloroguaiacol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	
Tetrachlorocatechol	METHOD	1653A	5.0	1	10/19/2023	10/25/2023	ND	

# **Analytical Results**

Client:

**International Paper** 

Project:

1653A Grab Samples/Riverdale Cluster

Sample Matrix: Water

Service Request: K2311757

Date Collected: NA

Date Received: NA
Date Extracted: 10/19/2023

Labeled Compound and Internal Standard Recovery Summary Chlorinated Phenolic Organic Compounds 1653A

# Percent Recovery

Analyte	ALS Percent Recovery Acceptance Criteria	Sample Name: Lab Code: Date Analyzed:	DSN004 K2311757-001 10/25/2023	DSN005 K2311757-002 10/25/2023	<b>DSN006</b> K2311757-003 10/25/2023
3,4,5-Trichlorophenol	36-131		99	90	89
4,5,6-Trichloroguaiacol-13c6	25-134		95	87	65
Pentachlorophenol-13c6	22-117		93	88	86
Tetrachloroguaiacol-13c6	18-129		92	87	81
Tetrachlorocatechol-13c6	D-121		39	13	12

## ALS Group USA, Corp. dba ALS Environmental

#### **Analytical Results**

Client:

International Paper

Project:

1653A Grab Samples/Riverdale Cluster

Sample Matrix: Water

Service Request: K2311757

Date Collected: NA

Date Received: NA

Date Extracted: 10/19/2023

Labeled Compound and Internal Standard Recovery Summary
Chlorinated Phenolic Organic Compounds
1653A

Percent Recovery

	ALS Percent	Sample Name: Lab Code:	Method Blank KQ2318522-01
	Recovery Acceptance	Date Analyzed:	10/25/2023
Analyte	Criteria		
3,4,5-Trichlorophenol	36-131		77
4,5,6-Trichloroguaiacol-13c6	25-134		74
Pentachlorophenol-13c6	22-117		71
Tetrachloroguaiacol-13c6	18-129		71
Tetrachlorocatechol-13c6	D-121		60

### ALS Group USA, Corp. dba ALS Environmental

#### **Analytical Results**

Client:

International Paper 1653A Grab Samples/Riverdale Cluster Project:

Sample Matrix: Water

Service Request: K2311757
Date Collected: NA
Date Received: NA
Date Extracted: 10/19/2023
Date Analyzed: 10/25/2023

Duplicate Summary Chlorinated Phenolic Organic Compounds

Sample Name: Lab Code:

Batch QC KQ2318522-03

Units: ug/L (ppb) Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
3,4,6-Trichloroguaiacol	METHOD	1653A	2.5	47.6	49.0	48.3	3	
3,4,5-Trichloroguaiacol	METHOD	1653A	2.5	47.2	48.1	47.7	2	
3,4,6-Trichlorocatechol	METHOD	1653A	5.0	94.2	95.0	94.6	1	
3,4,5-Trichlorocatechol	METHOD	1653A	5.0	97.1	96.4	96.8	1	
Trichlorosyringol	METHOD	1653A	2.5	46.2	46.1	46.2	0	
4,5,6-Trichloroguaiacol	METHOD	1653A	2.5	46.8	47.2	47.0	1	
Tetrachloroguaiacol	METHOD	1653A	5.0	94.8	96.4	95.6	2	
Tetrachlorocatechol	METHOD	1653A	5.0	98.1	97.5	97.8	1	

#### ALS Group USA, Corp. dba ALS Environmental

### **Analytical Results**

Client: International Paper Service Request: K2311757

Project:1653A Grab Samples/Riverdale ClusterDate Collected:NALCS Matrix:WaterDate Received:NA

Date Extracted: 10/19/2023
Date Analyzed: 10/25/2023

Ongoing Precision and Recovery Summary Chlorinated Phenolic Organic Compounds

Sample Name: Lab Control Sample Units: ug/L (ppb)
Lab Code: KQ2318522-02 Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	Acceptance Limits	Result Notes
3,4,6-Trichloroguaiacol	METHOD	1653A	50	47.6	95	74-140	
3.4,5-Trichloroguaiacol	METHOD	1653A	50	47.2	94	80-134	
3.4.6-Trichlorocatechol	METHOD	1653A	100	94.2	94	64-149	
3.4.5-Trichlorocatechol	METHOD	1653A	100	97.1	97	72-128	
Trichlorosyringol	METHOD	1653A	50	46.2	92	66-174	
4.5.6-Trichloroguaiacol	METHOD	1653A	50	46.8	94	88-116	
Tetrachloroguaiacol	METHOD	1653A	100	94.8	95	81-126	
Tetrachlorocatechol	METHOD	1653A	100	98.1	98	81-132	

# **ANALYTICAL REPORT**

## PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703 Generated 9/11/2023 4:48:38 PM

## JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table C

## **JOB NUMBER**

400-242682-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

Page 1 of 19



## **Eurofins Pensacola**

### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

### **Authorization**

Generated 9/11/2023 4:48:38 PM

Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-242682-1 SDG: Form 2F Table C

# **Table of Contents**

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#### Case Narrative

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-1 SDG: Form 2F Table C

Job ID: 400-242682-1

Laboratory: Eurofins Pensacola

**Narrative** 

**Job Narrative** 400-242682-1

#### Receipt

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.3°C

#### Metals

Method 200.8 CWA: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-639708 and analytical batch 400-639911 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

#### **General Chemistry**

Method 351.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-639817 and analytical batch 400-640062 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 4500 CL G: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: DSN004 STORM POND (400-242682-1).

#### Biology

Method 9222D: The following sample was received outside of holding time: DSN004 STORM POND (400-242682-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## **Detection Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-1

Lab Sample ID: 400-242682-1

SDG: Form 2F Table C

				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Client Samp	ple ID:	DSN00	4 STORM	POND

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	17		1.0	0.39	mg/L	1		300.0	Total/NA
Aluminum	0.17		0.025	0.014	mg/L	5		200.8	Total/NA
Iron	0.36		0.13	0.079	mg/L	5		200.8	Total/NA
Magnesium	7.1		0.13	0.041	mg/L	5		200.8	Total/NA
Zinc	0.012	J	0.020	0.0088	mg/L	5		200.8	Total/NA
Color	64		5.0	5.0	Color Units	1		110.2	Total/NA
pH at time of analysis	8.2		0.010	0.010	SU	1		110.2	Total/NA
Ammonia	0.037	J	0.050	0.024	mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	1.7		0.50	0.26	mg/L	1		351.2	Total/NA
Nitrogen, Total Organic	1.7		0.50	0.26	mg/L	1		Nitrogen,Org	Total/NA
MBAS - Surfactants	0.11		0.10	0.067	mg/I LAS MW 340	1		SM 5540C	Total/NA
Coliform, Fecal	4200	н нз	1.0	1.0	CFU/100mL	1		SM 9222D	Total/NA

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t	9				

9
9
19.00









## **Method Summary**

Client: International Paper Company

**Method Description** 

Metals (ICP/MS)

Color, Colorimetric

Nitrogen, Ammonia Nitrogen, Total Kjeldahl

Nitrogen, Organic

Chlorine, Residual

Preparation, Total Metals

Nitrogen, Total Kjeldahl

EPA = US Environmental Protection Agency

Anions, Ion Chromatography

Methylene Blue Active Substances (MBAS)

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Coliforms, Fecal (Membrane Filter)

Method

300.0

200.8 110.2

350.1

351.2 Nitrogen,Org

SM 4500 CI G

**Protocol References:** 

**Laboratory References:** 

SM 5540C

SM 9222D

200.8

351.2

Project/Site: Riverdale Mill

Job ID: 400-242682-1 SDG: Form 2F Table C

EET PEN

**EET PEN** 

Protocol	Laboratory
EPA	EET PEN
EPA	EET PEN
EPA	EET PEN
EPA	EET PEN
EPA	EET PEN
EPA	EET PEN
SM	EET PEN
SM	EET PEN
SM	FET PEN

**EPA** 

EPA



8

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41

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## **Sample Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242682-1

SDG: Form 2F Table C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
400-242682-1	DSN004 STORM POND	Water	08/29/23 14:40	08/30/23 11:55	

## **Client Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-1 SDG: Form 2F Table C

## Client Sample ID: DSN004 STORM POND

Date Collected: 08/29/23 14:40 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242682-1

**Matrix: Water** 

Method: EPA 300.0 - Anions, Ion Analyte		lography Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	17	Quantier	1.0		mg/L	_	riepareu	08/31/23 20:55	1
Mathed: EDA 200 9 Matele (ICD	/BEC)								
Method: EPA 200.8 - Metals (ICP Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.17	Qualifier	0.025	0.014		_	09/05/23 12:05	09/06/23 10:06	5
Iron	0.17		0.13	0.079	•		09/05/23 12:05	09/06/23 10:06	5
Magnesium	7.1		0.13	0.041	•		09/05/23 12:05	09/06/23 10:06	5
Zinc	0.012	J	0.020	0.0088			09/05/23 12:05	et of extended to	5
General Chemistry	_								
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Color (EPA 110.2)	64		5.0		Color Units			08/30/23 20:25	1
pH at time of analysis (EPA 110.2)	8.2		0.010	0.010				08/30/23 20:25	1
Ammonia (EPA 350.1)	0.037	J	0.050	0.024	mg/L			09/07/23 15:42	1
Nitrogen, Kjeldahl (EPA 351.2)	1.7		0.50	0.26	mg/L		09/05/23 17:08	09/06/23 16:20	1
Nitrogen, Total Organic (EPA Nitrogen,Org)	1.7		0.50	0.26	mg/L			09/05/23 13:10	1
Chlorine, Total Residual (SM 4500 Cl	<0.057	Н	0.10	0.057	mg/L			09/01/23 16:27	1
MBAS - Surfactants (SM 5540C)	0.11		0.10	0.067	mg/I LAS MW 340			08/31/23 08:30	1
Method: SM 9222D - Coliforms,			,						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	4200	н нз	1.0	1.0	CFU/100mL			08/30/23 13:54	1

### Definitions/Glossary

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-1 SDG: Form 2F Table C

#### Qualifiers

M	e	ta	Is	

J

Qualifier **Qualifier Description** 

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **General Chemistry**

Qualifier	Qualifier	Description
-----------	-----------	-------------

H Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements. J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### Biology

#### Qualifier **Qualifier Description**

Н Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

НЗ Sample was received and analyzed past holding time. This does not meet regulatory requirements.

#### Glossarv

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 П

%R Percent Recovery CFL Contains Free Liquid **CFU** Colony Forming Unit CNF Contains No Free Liquid

Duplicate Error Ratio (normalized absolute difference) DER

**Dilution Factor** Dil Fac

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

Estimated Detection Limit (Dioxin) EDL LOD Limit of Detection (DoD/DOE) Limit of Quantitation (DoD/DOE) LOQ

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML Most Probable Number MPN Method Quantitation Limit MQL

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

Negative / Absent NEG POS Positive / Present POL

**Practical Quantitation Limit** 

**PRES** Presumptive QC **Quality Control** 

Relative Error Ratio (Radiochemistry) RER

Reporting Limit or Requested Limit (Radiochemistry) RL

Relative Percent Difference, a measure of the relative difference between two points RPD

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TEQ

**TNTC** Too Numerous To Count

### Lab Chronicle

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-1 SDG: Form 2F Table C

Lab Sample ID: 400-242682-1

**Matrix: Water** 

## Client Sample ID: DSN004 STORM POND

Date Collected: 08/29/23 14:40 Date Received: 08/30/23 11:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL	10 mL	639431	08/31/23 20:55	LHB	EET PEN
Total/NA	Prep	200.8			50 mL	50 mL	639708	09/05/23 12:05	MS	EET PEN
Total/NA	Analysis	200.8		5			639911	09/06/23 10:06	NTH	EET PEN
Total/NA	Analysis	110.2		1			639240	08/30/23 20:25	DEK	EET PEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	640135	09/07/23 15:42	CAC	EET PEN
Total/NA	Prep	351.2			25 mL	25 mL	639817	09/05/23 17:08	VB	EET PEN
Total/NA	Analysis	351.2		1			640062	09/06/23 16:20	KWS	EET PEN
Total/NA	Analysis	Nitrogen,Org		1			639739	09/05/23 13:10	KWS	EET PEN
Total/NA	Analysis	SM 4500 CI G		1	10 mL	10 mL	639534	09/01/23 16:27	CAC	EET PEN
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	639287	08/31/23 08:30	SF	EET PEN
Total/NA	Analysis	SM 9222D		1			639338	08/30/23 13:54	AT	EET PEN
							Completed:	08/31/23 13:07	1	

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

#### **Laboratory References:**

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

## QC Association Summary

Client: International Paper Company Job ID: 400-242682-1 Project/Site: Riverdale Mill SDG: Form 2F Table C HPLC/IC Analysis Batch: 639431 Lab Sample ID Client Sample ID Method Prep Type Matrix **Prep Batch** 400-242682-1 **DSN004 STORM POND** Total/NA Water 300.0 Total/NA Water 300.0 MB 400-639431/5 Method Blank LCS 400-639431/6 Lab Control Sample Total/NA Water 300.0 LCSD 400-639431/7 Lab Control Sample Dup Total/NA Water 300.0 Metals Prep Batch: 639708 Lab Sample ID Client Sample ID Method **Prep Batch** Prep Type **Matrix** 200.8 **DSN004 STORM POND** 400-242682-1 Total/NA Water MB 400-639708/1-A ^5 Method Blank Total/NA Water 200.8 Water 200.8 LCS 400-639708/2-A ^5 Lab Control Sample Total/NA Analysis Batch: 639911 **Prep Batch** Lab Sample ID Client Sample ID **Prep Type** Matrix Method **DSN004 STORM POND** Water 200.8 639708 400-242682-1 Total/NA Method Blank Total/NA Water 200.8 639708 MB 400-639708/1-A ^5 LCS 400-639708/2-A ^5 Total/NA Water 200.8 639708 Lab Control Sample **General Chemistry** Analysis Batch: 639240 Prep Type Matrix Method Prep Batch Lab Sample ID Client Sample ID 110.2 Total/NA Water **DSN004 STORM POND** 400-242682-1 Total/NA Water 110.2 Method Blank MB 400-639240/1 Total/NA Water 110.2 LCS 400-639240/3 Lab Control Sample Total/NA Water 110.2 400-242682-1 DU **DSN004 STORM POND** Analysis Batch: 639287 Matrix Method **Prep Batch** Lab Sample ID Client Sample ID **Prep Type** SM 5540C Total/NA Water 400-242682-1 **DSN004 STORM POND** SM 5540C Method Blank Total/NA Water MB 400-639287/3 SM 5540C Total/NA Water LCS 400-639287/4 Lab Control Sample Lab Control Sample Total/NA Water SM 5540C MRL 400-639287/5 Analysis Batch: 639534 Prep Batch Prep Type Matrix Method Client Sample ID Lab Sample ID SM 4500 CI G Total/NA Water 400-242682-1 **DSN004 STORM POND** SM 4500 CI G Method Blank Total/NA Water MB 400-639534/4 Water SM 4500 CI G Total/NA Lab Control Sample LCS 400-639534/5 Water SM 4500 CI G Total/NA MRL 400-639534/3 Lab Control Sample SM 4500 CI G Total/NA Water 400-242682-1 DU **DSN004 STORM POND** Analysis Batch: 639739 Method **Prep Batch Prep Type** Matrix Lab Sample ID Client Sample ID **DSN004 STORM POND** Total/NA Water Nitrogen, Org 400-242682-1 Prep Batch: 639817 Method **Prep Batch** Matrix **Cilent Sample ID Prep Type** Lab Sample ID Total/NA Water 351.2

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Total/NA

Total/NA

Water

Water

351.2

351.2

**DSN004 STORM POND** 

Lab Control Sample

Method Blank

400-242682-1

MB 400-639817/1-A

LCS 400-639817/2-A

## **QC Association Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-1 SDG: Form 2F Table C

## **General Chemistry**

Analysis Batch: 640062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242682-1	DSN004 STORM POND	Total/NA	Water	351.2	639817
MB 400-639817/1-A	Method Blank	Total/NA	Water	351.2	639817
LCS 400-639817/2-A	Lab Control Sample	Total/NA	Water	351.2	639817
MRL 400-640062/10	Lab Control Sample	Total/NA	Water	351.2	

### Analysis Batch: 640135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242682-1	DSN004 STORM POND	Total/NA	Water	350.1	
MB 400-640135/24	Method Blank	Total/NA	Water	350.1	
LCS 400-640135/25	Lab Control Sample	Total/NA	Water	350.1	
MRL 400-640135/18	Lab Control Sample	Total/NA	Water	350.1	

## **Biology**

### Analysis Batch: 639338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242682-1	DSN004 STORM POND	Total/NA	Water	SM 9222D	
MB 400-639338/1	Method Blank	Total/NA	Water	SM 9222D	
LCS 400-639338/2	Lab Control Sample	Total/NA	Water	SM 9222D	

## QC Sample Results

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242682-1 SDG: Form 2F Table C

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-639431/5 Matrix: Water

Lab Sample ID: LCS 400-639431/6

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 639431

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	< 0.39		1.0	0.39	mg/L			08/31/23 18:36	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 639708

Analysis Batch: 639431

**Matrix: Water** 

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Sulfate 10.0 9.20 90-110

Lab Sample ID: LCSD 400-639431/7 Client Sample ID: Lab Control Sample Dup Matrix: Water Prep Type: Total/NA

Analysis Batch: 639431

LCSD LCSD RPD %Rec Spike Added Result Qualifier Unit D %Rec Limits RPD Limit Sulfate 10.0 9.60 mg/L

### Method: 200.8 - Metals (ICP/MS)

Client Sample ID: Method Blank Lab Sample ID: MB 400-639708/1-A ^5 Prep Type: Total/NA Matrix: Water

Analysis Batch: 639911

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.014		0.025	0.014	mg/L		09/05/23 12:05	09/06/23 07:10	5
Iron	< 0.079		0.13	0.079	mg/L		09/05/23 12:05	09/06/23 07:10	5
Magnesium	<0.041		0.13	0.041	mg/L		09/05/23 12:05	09/06/23 07:10	5
Zinc	<0.0088		0.020	0.0088	mg/L		09/05/23 12:05	09/06/23 07:10	5

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 400-639708/2-A ^5 Prep Type: Total/NA Matrix: Water

Prep Batch: 639708 Analysis Batch: 639911

Analysis Batom soot in	Spike	LCS	LCS				%Rec	
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	
Aluminum	0.500	0.445		mg/L		89	85 - 115	
Iron	5.00	4.59		mg/L		92	85 - 115	
Magnesium	5.00	4.48		mg/L		90	85 - 115	
Zinc	0.0500	0.0483		mg/L		97	85 - 115	

#### Method: 110.2 - Color, Colorimetric

Client Sample ID: Method Blank Lab Sample ID: MB 400-639240/1 Prep Type: Total/NA Matrix: Water

Analysis Batch: 639240

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Color	<5.0		5.0	5.0	Color Units			08/30/23 20:25	1
pH at time of analysis	5.97		0.010	0.010	SU			08/30/23 20:25	1

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0

Client Sample ID: Method Blank

30

## Method: 110.2 - Color, Colorimetric (Continued)

8.2

Lab Sample ID: LCS 400-639240/3	Client Sample ID: Lab Control Sample
Matrix: Water	Prep Type: Total/NA
Analysis Batch: 639240	

Client Sample ID: DSN004 STORM POND Lab Sample ID: 400-242682-1 DU Matrix: Water Prep Type: Total/NA Analysis Batch: 639240 DU DU RPD Sample Sample Result Qualifier Result Qualifier RPD **Analyte** Unit Limit Color 64 Color Units 2 65.0

8.24

SU

### Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 400-640135/24

pH at time of analysis

-aa campic in the rest of the campic	and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and the same and t
Matrix: Water	Prep Type: Total/NA
Analysis Batch: 640135	
MB MB	

 Analyte
 Result Qualifier
 RL
 MDL Unit
 D Prepared
 Analyzed
 Dil Fac

 Ammonia
 <0.024</td>
 0.050
 0.024 mg/L
 09/07/23 15:08
 1

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 400-640135/25 Prep Type: Total/NA Matrix: Water Analysis Batch: 640135 LCS LCS %Rec Spike Added D %Rec Limits Result Qualifier Unit Analyte 90 - 110 Ammonia 3.00 2.98 mg/L 99

Client Sample ID: Lab Control Sample Lab Sample ID: MRL 400-640135/18 Matrix: Water Prep Type: Total/NA Analysis Batch: 640135 MRL MRL %Rec Spike Limits Added Result Qualifier %Rec Unit 120 50 - 150 Ammonia 0.0500 0.0600 mg/L

### Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 400-6398 Matrix: Water Analysis Batch: 640062	317/1-A							le ID: Method Prep Type: To Prep Batch: (	otal/NA
Analysis Batch. 040002	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<0.26		0.50	0.26	mg/L		09/05/23 17:04	09/06/23 16:08	1

Lab Sample ID: LCS 400-639817/2-A				Clie	nt Sa	mple ID	: Lab Control Sample
Matrix: Water Analysis Batch: 640062							Prep Type: Total/NA Prep Batch: 639817
	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Nitrogen, Kjeldahl	10.0	10.2		mg/L		102	90 - 110

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BE-AL - J. OF4 O A	124 T-4-1	1/2-1-1-1-1	(A 4! 1)
Method: 351.2 - N	NITTOGON LOTSI	Kieldani	Continuedi
moniou. oo i.k - i	THU ONG THE TOTAL	I I CIGGIII	(Outlinea)

Lab Sample ID: MRL 400-640062/10 Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA

Analysis Batch: 640062	Spike	MRL	MRL				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nitrogen, Kjeldahl	0.500	0.420	J	mg/L		84	50 - 150	

### Method: SM 4500 CI G - Chlorine, Residual

Client Sample ID: Method Blank Lab Sample ID: MB 400-639534/4 Prep Type: Total/NA Matrix: Water

Analysis Batch: 639534

MB MB Dil Fac Result Qualifier RI MDL Unit Analyzed Prepared Analyte 09/01/23 16:27 0.10 0.057 mg/L Chlorine, Total Residual < 0.057

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 400-639534/5 Matrix: Water Prep Type: Total/NA

Analysis Batch: 639534

Spike LCS LCS %Rec Added Result Qualifier Unit D %Rec Limits Chlorine, Total Residual 1 17 1 20 mg/L 103 85 - 115

Client Sample ID: Lab Control Sample Lab Sample ID: MRL 400-639534/3 Prep Type: Total/NA Matrix: Water Analysis Batch: 639534

Spike MRL MRL %Rec Limits Added Result Qualifier D %Rec Analyte Unit 50 - 150 0.117 0.130 mg/L 111 Chlorine, Total Residual

Client Sample ID: DSN004 STORM POND Lab Sample ID: 400-242682-1 DU Matrix: Water Prep Type: Total/NA Analysis Batch: 639534 DU DU RPD Sample Sample RPD Result Qualifier Result Qualifier Unit Analyte

Limit NC 10 <0.057 H < 0.057 mg/L Chlorine, Total Residual

### Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Client Sample ID: Method Blank Lab Sample ID: MB 400-639287/3 Prep Type: Total/NA Matrix: Water Analysis Batch: 639287

MB MB Dil Fac Result Qualifier RL **MDL** Unit **Prepared** Analyzed Analyte 0.10 mg/I LAS MW 08/31/23 08:30 MBAS - Surfactants < 0.067 0.067 340

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 400-639287/4 Prep Type: Total/NA Matrix: Water Analysis Batch: 639287

%Rec Spike LCS LCS %Rec Limits Result Qualifier Unit Added **Analyte** 90 - 110 107 0.500 0.533 mg/I LAS MBAS - Surfactants MW 340

## **QC Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-1

SDG: Form 2F Table C

Method: SM 5540C - Methylene Blue Active Substances (MBAS) (Continued)

Lab Sample ID: MRL 400-639287/5 **Matrix: Water** 

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 639287

**Analyte** 

MBAS - Surfactants

**Matrix: Water** 

Spike MRL MRL %Rec Added Result Qualifier D %Rec Limits Unit 0.100 0.123 mg/L

75-125 123

Method: SM 9222D - Coliforms, Fecal (Membrane Filter)

Lab Sample ID: MB 400-639338/1

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 639338

MB MB

Result Qualifier RL Analyzed Dil Fac Analyte MDL Unit Prepared 1.0 1.0 CFU/100mL Coliform, Fecal <1.0

08/30/23 13:12

Phone: 850-474-1001 Fax: 850-478-2671

## **Chain of Custody Record**



🔆 eurofins

Environment Testing

Client Information	SamplerCAP	JAC	DEAL	CON Lab F	tmire. Che	venne	R		400	)-242	682 (	coc	king No(s)		COC No. 400-122360-41	792.1
Client Contact: Carla Pearson	Phone:	24-A1	8-52	2L E-Ma	il yenne.Whi							á	gin AL		Page <sup>-</sup>	
Company Company		31-11	PWSID.	Che	yenne.vvn	imire	ger.er						110		Page 1 of 1	
nternational Paper Company	In . D. ( D )					_		An	alys	is R	eque	ested		1 10-20		
Address 601 County Road 78	Due Date Request	ed:	1											1 10	Preservation Co	des: M - Hexane
City Selma	TAT Requested (d.	ays):	101									1 4		1	A - HCL B - NaOH	N - None O - AsNaO2
State, Zip		178	M.												C - Zn Acetate D - Nitric Aced	P - Na2O4S Q - Na2SO3
AL, 36703	Compliance Project	ct A Yes	∆ No		13							5			E - NaHSO4 F - MeOH	R - Na2S2O3 S - H2SO4
334-418-5236(Tel)	16969625											Residua			G - Amchlor H - Ascorbic Acid	T - TSP Dodecahydrate U - Acetone
Email Carla.Pearson@ipaper.com	WO #.				oriNo)	Beta						Total		4	I - Ice J - DI Water	V-MCAA
Project Name	Project #:					Gross B				ZN ZN				種	K-EDTA	W - pH 4-5 Y - Trizma
Form 2F Table C	40016047 SSOW#:	-			ble)	5	n,On		infat	8	Fecal	Chlorine,	11	1	Other:	Z - other (specify)
Site SIVERDALE MILL	COOTIN.				Sam		roge		SD-S	F.		B.		20	S. Other.	
			Sample	Matrix	Ped 4	900.0 - Gross Alpha	350.1, 351.2, Nitrogen,Org	5	- S	4-AL	Surfactants	SM4500_Chlor_B -		Totali Number of Contain		
			Туре	(W=erater, S=solid,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Gre	351	-Col	RGF	63		00		2		
Sample Identification	Sample Date	Sample Time	(C=comp, G=grab)	O=wastaleit, BT=Tissue, A=Air	Elaid	0.00	150.1	110,2 - Color	90	200.8 CWA	5540C	3M45		300	Special I	nstructions/Note:
Talling to the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the transfer of the				nor Soce	XX D	in a	6	N TO							Special	istructions/Note.
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Possible Hazard Identification		1			Same	lo Di-	2000	1/4	fac -	av b	0.755	00000	if sameles		ned longer than	( month)
Non-Hazard Gentification  Non-Hazard Flammable Skin Irritant Poi	ison B	nown 🗆	Radiologica	al	Samp	Detro	n To C	(A	ree m		Die	osal B	u samples		chive For	Months
Deliverable Requested. I, II, III, IV, Other (specify)	SUITE UNK	IIOWII	Radiologica	21	Specia					uirer	nents					
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Relinquished by	Date/Time.			Company	Re	cerved	by:	K	-6	_			Date/T	ime	5 11.00	Company
Custody Seals Intact: Custody Seal No.:	314,3	13			Co	oler Te	mperati	ure(s)	°C and	Othe	Rema	rks.	03.	TOO		











## **Login Sample Receipt Checklist**

Client: International Paper Company

Containers requiring zero headspace have no headspace or bubble is

Job Number: 400-242682-1

SDG Number: Form 2F Table C

List Source: Eurofins Pensacola

Login Number: 242682

**List Number: 1** 

MS/MSDs

<6mm (1/4").

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

Creator: Roberts, Alexis J

	A	Commant
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.3°C IR8
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	True	

N/A

True

True

N/A























## **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-1 SDG: Form 2F Table C

## Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	<b>US Federal Programs</b>	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703

Generated 10/3/2023 3:43:29 PM

## JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table C

## JOB NUMBER

400-242682-2

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

Page 1 of 16



## **Eurofins Pensacola**

## **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

### Authorization

hayundxWhitmine

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Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne, Whitmire@et.eurofinsus.com (850)471-6222

Eurofins Pensacola is a laboratory within Eurofins Environment Testing Southeast, LLC, a company within Eurofins Environment Testing Group of Companies
Page 2 of 16
10/3/2023

Client: International Paper Company Project/Site: Riverdale Mill Laboratory Job ID: 400-242682-2 SDG: Form 2F Table C

## **Table of Contents**

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#### Case Narrative

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-2 SDG: Form 2F Table C

Job ID: 400-242682-2

Laboratory: Eurofins Pensacola

**Narrative** 

**Job Narrative** 400-242682-2

#### Receipt

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.3°C

#### **Gas Flow Proportional Counter**

Method 900.0: Gross Alpha and Gross Beta batch 626541. The detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: (870-20321-C-1-A) and (870-20321-C-1-D DU). Analytical results are reported with the detection limit achieved.

Method 900.0: Gross Alpha and Gross Beta batch 626541. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.DSN004 STORM POND (400-242682-1), (LCS 160-626541/2-A), (LCSB 160-626541/3-A), (MB 160-626541/1-A), (870-20321-C-1-A), (870-20321-C-1-D DU), (870-20321-C-1-B MS) and (870-20321-C-1-C MSBT)

Method 903.0: Radium-226 Prep Batch 160-626832. The following sample was prepared at a reduced aliquot due to Matrix: DSN004 STORM POND (400-242682-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 903.0: Radium-226 batch 626832. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.DSN004 STORM POND (400-242682-1), (LCS 160-626832/2-A), (LCSD 160-626832/3-A) and (MB 160-626832/1-A)

Method 903.0 TAR: Total Alpha Radium Prep Batch 160-626835. The following sample was prepared at a reduced aliquot due to Matrix: DSN004 STORM POND (400-242682-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 903.0\_TAR: Total Alpha Radium batch 626835. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.DSN004 STORM POND (400-242682-1), (LCS 160-626835/2-A), (LCSD 160-626835/3-A) and (MB 160-626835/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## **Method Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242682-2 SDG: Form 2F Table C

Method	Method Description	Protocol	Laboratory
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
903.0	Total Alpha Radium (GFPC)	EPA	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

#### **Protocol References:**

EPA = US Environmental Protection Agency None = None

#### Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

## Sample Summary

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242682-2

SDG: Form 2F Table C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242682-1	DSN004 STORM POND	Water	08/29/23 14:40	08/30/23 11:55

## **Client Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-2 SDG: Form 2F Table C

olo ID: 400 242692 4

Client Sample ID: DSN004 STORM POND

Date Collected: 08/29/23 14:40 Date Received: 08/30/23 11:55 Lab Sample ID: 400-242682-1

**Matrix: Water** 

			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	2.50	U	1.75	1.78	3.00	2.51	pCi/L	09/05/23 10:47	09/25/23 20:08	1
Gross Beta	2.52		0.816	0.854	4.00	1.03	pCi/L	09/05/23 10:47	09/25/23 20:08	1

Method: EPA 90	3.0 - Radium	-226 (GFP	C)							
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(2 <del>0+/-)</del>	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.118	U	0.0900	0.0906	1.00	0.124	pCi/L	09/06/23 10:34	09/28/23 20:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.9		30 - 110					09/06/23 10:34	09/28/23 20:33	1

			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Total Alpha Radium	0.0426	U	0.107	0.107	1.00	0.194	pCi/L	09/06/23 10:37	09/22/23 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.9		30 - 110					09/06/23 10:37	09/22/23 14:56	1

## **Definitions/Glossary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242682-2 SDG: Form 2F Table C

ND

NEG POS

PQL PRES

RER

**RPD** 

TEF

TEQ

TNTC

RL

Qualifiers Rad Qualifier **Qualifier Description** U Result is less than the sample detection limit. 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 **CFU** Colony Forming Unit CNF Contains No Free Liquid Duplicate Error Ratio (normalized absolute difference) DER Dil Fac **Dilution Factor** Detection Limit (DoD/DOE) DL Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DL, RA, RE, IN Decision Level Concentration (Radiochemistry) DLC Estimated Detection Limit (Dioxin) EDL LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA Minimum Detectable Concentration (Radiochemistry) MDC MDL **Method Detection Limit** ML Minimum Level (Dioxin) MPN Most Probable Number Method Quantitation Limit MQL **Not Calculated** NC

Not Detected at the reporting limit (or MDL or EDL if shown)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Negative / Absent

Positive / Present **Practical Quantitation Limit** 

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Presumptive **Quality Control** 

### Lab Chronicle

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-2 SDG: Form 2F Table C

Client Sample ID: DSN004 STORM POND

Date Collected: 08/29/23 14:40 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242682-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Evaporation		-	178.00 mL	1.0 g	626541	09/05/23 10:47	ASG	EET SL
Total/NA	Analysis	900.0		1			629491	09/25/23 20:08	FLC	EET SL
Total/NA	Prep	PrecSep_0			738.92 mL	1.0 g	626835	09/06/23 10:37	KAC	EET SL
Total/NA	Analysis	903.0		1			629278	09/22/23 14:56	SCB	EET SL
Total/NA	Prep	PrecSep-21			738.92 mL	1.0 g	626832	09/06/23 10:34	KAC	EET SL
Total/NA	Analysis	903.0		1			629974	09/28/23 20:33	FLC	EET SL

**Laboratory References:** 

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

## **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242682-2 SDG: Form 2F Table C

_	_		
	-	_	
K	~	0	

Prep	Batch:	626541
------	--------	--------

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242682-1	DSN004 STORM POND	Total/NA	Water	Evaporation	
MB 160-626541/1-A	Method Blank	Total/NA	Water	Evaporation	
LCS 160-626541/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSB 160-626541/3-A	Lab Control Sample	Total/NA	Water	Evaporation	



### Prep Batch: 626832

Lab Sample ID 400-242682-1	Client Sample ID DSN004 STORM POND	Prep Type Total/NA	Matrix Water	Method PrecSep-21	Prep Batch
MB 160-626832/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-626832/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-626832/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	



#### Prep Batch: 626835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242682-1	DSN004 STORM POND	Total/NA	Water	PrecSep_0	
MB 160-626835/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-626835/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-626835/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-2

SDG: Form 2F Table C

## Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Spike

Added

49.6

Spike

Added

72.6

Lab Sample ID: MB 160-626541/1-A

Matrix: Water

Analysis Batch: 629491

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 626541

	MD	МВ	Count	Total						
Analyte		Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)	RL	MDC	Linit	Prepared	Analyzed	Dil Fac
Analyco	Nesuit	Quanner	(2017-)	(2017-)	1/1	MIDC	Oilit	Fiepareu	Allalyzeu	Dirac
Gross Alpha	-0.3114	U	0.623	0.624	3.00	1.25	pCi/L	09/05/23 10:47	09/25/23 16:26	1
Gross Beta	-0.4878	U	0.497	0.499	4.00	0.970	pCi/L	09/05/23 10:47	09/25/23 16:26	1

LCS LCS

Result Qual

43.66

67.39

Lab Sample ID: LCS 160-626541/2-A

**Matrix: Water** 

Analyte

Analyte

**Gross Beta** 

Gross Alpha

Analysis Batch: 629491

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 626541

Total Uncert. %Rec (20+/-) RL **MDC** Unit %Rec Limits

1.87 pCl/L

Lab Sample ID: LCSB 160-626541/3-A

**Matrix: Water** 

Analysis Batch: 629491

Client Sample ID: Lab Control Sample

88

75-125

Prep Type: Total/NA Prep Batch: 626541

RL

4.00

3.00

Total

6.72

LCSB LCSB Uncert. Result Qual  $(2\sigma + 1-)$ 7.27

%Rec **MDC** Unit 0.975 pCi/L

%Rec Limits

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-626832/1-A

**Matrix: Water** 

Client Sample ID: Method Blank

75 - 125

Prep Type: Total/NA

Analysis Batch: (	629974								Prep Batch:	626832
	МВ	MP	Count Uncert.	Total Uncert.						
Analyte	-	Qualifier	(2g+/-)	(2g+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01683	U	0.0628	0.0628	1.00	0.130	PCIVL	09/06/23 10:34	09/28/23 20:30	,
	MB	MB								
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.4		30 - 110					09/06/23 10:34	09/28/23 20:30	1

Lab Sample ID: LCS 160-626832/2-A

Matrix: Water

Analysis Batch: 629974

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 626832

				Total						
	Spike	LCS	LCS	Uncert.					%Rec	
Analyte	Added	Result	Qual	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	
Radium-226	11.3	11.21		1.15	1.00	0.105	pCi/L	99	75 - 125	

LCS LCS

%Yield Qualifier Limits Carrier 83.6 30-110 Ba Carrier

Client: International Paper Company

Project/Site: Riverdale Mill

Analysis Batch: 629974

Job ID: 400-242682-2 SDG: Form 2F Table C

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-626832/3-A

Matrix: Water

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 626832

					Total							
-		Spike	LCSD	LCSD	Uncert.					%Rec		RER
-	Analyte	Added	Result	Qual	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	RER	Limit
	Radium-226	11.3	12.50		1.30	1.00	0.0972	pCi/L	110	75 - 125	0.53	1

LCSD LCSD

Carrier %Yield Qualifier Limits Ba Carrier 85.9 30-110

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 626835

Lab Sample ID: MB 160-626835/1-A **Matrix: Water** 

Method: 903.0 - Total Alpha Radium (GFPC)

Analysis Batch: 629278

Total Count MB MB Uncert. Uncert.

MB MB

84.4

%Yield Qualifier

Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ Total Alpha Radium 0.05128 U

0.0734 0.0732

Limits

30 - 110

RL **MDC** Unit 1.00 0.124 pCl/L

Prepared Analyzed 09/06/23 10:37

Prepared

Dil Fac 09/22/23 14:55

Analyzed

Lab Sample ID: LCS 160-626835/2-A

Matrix: Water

Analysis Batch: 629278

Client Sample ID: Lab Control Sample

09/06/23 10:37 09/22/23 14:55

Prep Type: Total/NA Prep Batch: 626835

**Total** 

Spik	e LCS	LCS	Uncert.					%Rec	
Analyte Adde	d Result	Qual	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	
Total Alpha 11	.3 11.86		1.22	1.00	0.126	pCi/L	105	75 - 125	

Radium

Carrier

Ba Carrier

LCS LCS

Carrier %Yield Qualifier Limits 83.6 30-110 Ba Carrier

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 626835

Lab Sample ID: LCSD 160-626835/3-A

**Matrix: Water** 

Analysis Batch: 629278

Total

%Rec RER LCSD LCSD Spike Uncert. %Rec Limits RER Limit  $(2\sigma + / -)$ RL **MDC** Unit Added Result Qual **Analyte** 75 - 125 1.00 0.101 pCi/L 104 0.03 11.3 11.80 1.21 Total Alpha

Radium

LCSD LCSD

Limits Carrier %Yield Qualifier 30-110 Ba Carrier 85.9

Eurofins Pensacola

## **Chain of Custody Record**

eurofins

**Environment Testing** 

Client Information	Sampler CAP Phone:	LA C.	PEAD	Lab P Whit	м mire, Chey	enne	R		400-2	4268	2 COC	cking No(s)	COC No. 400-122360-41792.1
lient Conlact: Carla Pearson	Phone:	34-41	8-52	36 E-Mail	yenne.Whit	mire@	Det.eu	rofins	sus.cor	n	1 4	igin AL	Page 1 of 1
ompany nternational Paper Company			PWSID-								uested	- ' '	Job #:
ddress:	Due Date Request	ed:			1	I		Alle	alysis	Key	uesteu		Preservation Codes:
601 County Road 78	TAT Requested (da	1ys);	-		2								A - HCL M - Hexane N - None
Selma		AS	P:	- 4									C - Zn Acetate P - Na2O4S
tate, Zip AL., 36703	Compliance Projec	et: A Yes A	No								-		E - NaHSO4 R - Na2S2O3
Phone: 134-418-5236(Tel)	PO # 16969625										Residual	8	G - Amchlor S - H2SO4 T - TSP Dodecahydrate
mail	WO #:				pisi(Vstratuo)	Beta					Total R		I - Ice U - Acatone V - MCAA
Carla.Pearson@ipaper.com Project Name	Project #:				No.	Gross B	_		MG & ZN		ne, To		K-EDTA W-PH 4-5
Form 2F Table C	40016047 SSOW#:			_	ple)(	45	351.2, Nitrogen, Org		28D - Sulfate AL, FE, MG 8		Fecal Chlorine,		Z - other (specify)
HIVERDALE MILL				_	Sait	Alpha	troge		BD - S	tants	- 1		0.
			Sample	Matrix	T.O.T	900.0 - Gross Alpha	1.2, N			Surfactants	9222D - Coliforms SM4500_Chlor_B		
		Sample	Type (C=comp,	(Wewster, Swsolid, Owwaste/eil,	diein	0-G	1, 35	110,2 - Color	300_ORGFM.		, , ,	N N	
Sample Identification	Sample Date	Time	G=grab)	BT=Tissue, A=Air)	Eleidi 903.0,	1200	CONTRACTOR OF THE PARTY.	Charles Land	MAN DO MAN	5540C	Townson Comments	Comment of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the las	Special Instructions/Note:
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Possible Hazard Identification					Sampl	e Dis	posal	(Af	ee may	bea	ssessed	if samples are retain	ned longer than 1 month)
Non-Hazard Flammable Skin Irritant Pois Deliverable Requested. I, II, III, IV, Other (specify)	son B Unk	nown	Radiological		Specia		To C		Requi	reme	Disposal E	A Cab Arc	chive For Months
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Page 13 of 16

## **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242682-2

SDG Number: Form 2F Table C

List Source: Eurofins Pensacola

Login Number: 242682 List Number: 1

Creator: Roberts, Alexis J

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.3°C IR8
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242682-2 SDG Number: Form 2F Table C

List Source: Eurofins St. Louis

List Creation: 09/01/23 03:00 PM

Login Number: 242682

List Number: 2

Creator: Pinette, Meadow L		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	

### **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242682-2 SDG: Form 2F Table C

#### Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
lowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	10-01-23
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
West Virginia DEP	State	381	10-31-23

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Pensacola

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# ANALYTICAL REPORT

### PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703 Generated 9/11/2023 4:52:10 PM

### JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table C

### **JOB NUMBER**

400-242702-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514



## **Eurofins Pensacola**

### **Job Notes**

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

### **Authorization**

Generated

Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

9/11/2023 4:52:10 PM

Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-242702-1 SDG: Form 2F Table C

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#### Case Narrative

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242702-1 SDG: Form 2F Table C

Job ID: 400-242702-1

Laboratory: Eurofins Pensacola

**Narrative** 

Job Narrative 400-242702-1

#### Receipt

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.5°C

Method 200.8 CWA: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-639708 and analytical batch 400-639911 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

#### **General Chemistry**

Method 351.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-639817 and analytical batch 400-640062 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 4500\_CL\_G: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: DSN005 STORM POND (400-242702-1).

#### Biology

Method 9222D: The following sample was received outside of holding time: DSN005 STORM POND (400-242702-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### **Detection Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242702-1

SDG: Form 2F Table C Lab Sample ID: 400-242702-1

### Client Sample ID: DSN005 STORM POND

Analyte	Result Qualifie	r RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	22	1.0	0.39	mg/L	1	_	300.0	Total/NA
Aluminum	0.16	0.025	0.014	mg/L	5		200.8	Total/NA
Iron	0.17	0.13	0.079	mg/L	5		200.8	Total/NA
Magnesium	3.1	0.13	0.041	mg/L	5		200.8	Total/NA
Zinc	0.19	0.020	0.0088	mg/L	5		200.8	Total/NA
Color	66	5.0	5.0	Color Units	1		110.2	Total/NA
pH at time of analysis	7.4	0.010	0.010	SU	1		110.2	Total/NA
Ammonia	0.059	0.050	0.024	mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	0.99	0.50	0.26	mg/L	1		351.2	Total/NA
Nitrogen, Total Organic	0.93	0.50	0.26	mg/L	1		Nitrogen, Org	Total/NA
MBAS - Surfactants	0.14	0.10	0.067	mg/I LAS MW 340	1		SM 5540C	Total/NA
Coliform, Fecal	38000 J H H3	1.0	1.0	CFU/100mL	1		SM 9222D	Total/NA

### **Method Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242702-1 SDG: Form 2F Table C

Vlethod	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET PEN
200.8	Metals (ICP/MS)	EPA	EET PEN
110.2	Color, Colorimetric	EPA	EET PEN
350.1	Nitrogen, Ammonia	EPA	EET PEN
351.2	Nitrogen, Total Kjeldahl	EPA	EET PEN
Nitrogen,Org	Nitrogen, Organic	EPA	EET PEN
SM 4500 CI G	Chlorine, Residual	SM	EET PEN
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	EET PEN
SM 9222D	Coliforms, Fecal (Membrane Filter)	SM	EET PEN
8.00	Preparation, Total Metals	EPA	EET PEN
351.2	Nitrogen, Total Kieldahl	EPA	EET PEN

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## 14

#### **Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

#### **Laboratory References:**

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

### **Sample Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242702-1

SDG: Form 2F Table C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242702-1	DSN005 STORM POND	Water	08/29/23 14:50	08/30/23 11:55

### **Client Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242702-1

SDG: Form 2F Table C

Client Sample ID: DSN005 STORM POND

Date Collected: 08/29/23 14:50 Date Received: 08/30/23 11:55 Lab Sample ID: 400-242702-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	22		1.0	0.39	mg/L			09/01/23 01:14	1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Sulfate	22	1.0	0.39	mg/L			09/01/23 01:14	1	
Method: EPA 200.8 - Metals	(ICP/MS)								
Analyta	Popult Qualifier	DI	MIDI	Unit	0	Dropared	Annhered	Dil Ean	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.16		0.025	0.014	mg/L		09/05/23 12:05	09/06/23 10:13	5
Iron	0.17		0.13	0.079	mg/L		09/05/23 12:05	09/06/23 10:13	5
Magnesium	3.1		0.13	0.041	mg/L		09/05/23 12:05	09/06/23 10:13	5
Zinc	0.19		0.020	0.0088	mg/L		09/05/23 12:05	09/06/23 10:13	5

•									
General Chemistry  Analyte	Result	Qualifier	RL	MDL	Unit	D Pre	pared	Analyzed	Dil Fa
Color (EPA 110.2)	66		5.0	5.0	Color Units	_		08/30/23 20:25	
pH at time of analysis (EPA 110.2)	7.4		0.010	0.010	SU			08/30/23 20:25	
Ammonia (EPA 350.1)	0.059		0.050	0.024	mg/L			09/07/23 15:42	
Nitrogen, Kjeldahl (EPA 351.2)	0.99		0.50	0.26	mg/L	09/05/	/23 17:08	09/06/23 16:26	
Nitrogen, Total Organic (EPA Nitrogen,Org)	0.93		0.50	0.26	mg/L			09/05/23 13:10	1
Chlorine, Total Residual (SM 4500 Cl G)	<0.057	Н	0.10	0.057	mg/L			09/01/23 16:27	
MBAS - Surfactants (SM 5540C)	0.14		0.10	0.067	mg/I LAS MW 340			08/31/23 08:30	

Method: SM 9222D - Coliforms, F	ecal (Me								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	38000	J H H3	1.0	1.0	CFU/100mL	_		08/30/23 13:12	1

## **Definitions/Glossary**

Client: International Paper Company Project/Site: Riverdale Mill

Job	ID:	40	0-2	42702	-1
SDG:	Fo	rm	2F	<b>Table</b>	C

General Cl	
Qualifier	Qualifier Description
Н	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Biology	
Qualifier	Qualifier Description
Н	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
	Completives associated and anothered most holding time. This does not most associated with the most associated
НЗ	Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Qualifiers

•	result is less than the result greater than or equal to the installation to concentration is an approximate value.
Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
n n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

NEG	Negative / Absent
POS	Positive / Present
PQL	<b>Practical Quantitation Limit</b>
PRES	Presumptive

QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
DI	Paparting Limit or Dequested Limit (Padiochemi

1.45	reporting Elith of reduced Elith (research)
RPD	Relative Percent Difference, a measure of the relative difference between two points

TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
THITO	To a Niverson To Count

#### **Lab Chronicle**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242702-1

SDG: Form 2F Table C

Client Sample ID: DSN005 STORM POND

Date Collected: 08/29/23 14:50 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242702-1

**Matrix: Water** 

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL	10 mL	639431	09/01/23 01:14	LHB	EET PEN
Total/NA	Prep	200.8			50 mL	50 mL	639708	09/05/23 12:05	MS	EET PEN
Total/NA	Analysis	200.8		5			639911	09/06/23 10:13	NTH	EET PEN
Total/NA	Analysis	110.2		1			639240	08/30/23 20:25	DEK	EET PEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	640135	09/07/23 15:42	CAC	EET PEN
Total/NA	Prep	351.2			25 mL	25 mL	639817	09/05/23 17:08	VB	EET PEN
Total/NA	Analysis	351.2		1			640062	09/06/23 16:26	KWS	EET PEN
Total/NA	Analysis	Nitrogen, Org		1			639739	09/05/23 13:10	KWS	EET PEN
Total/NA	Analysis	SM 4500 CI G		1	10 mL	10 mL	639534	09/01/23 16:27	CAC	EET PEN
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	639287	08/31/23 08:30	SF	EET PEN
Total/NA	Analysis	SM 9222D		1			639338	08/30/23 13:12	AT	EET PEN
							Completed:	08/31/23 13:07	1	

<sup>&</sup>lt;sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

#### Laboratory References:

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

**QC Association Summary** Client: International Paper Company Job ID: 400-242702-1 Project/Site: Riverdale Mill SDG: Form 2F Table C HPLC/IC Analysis Batch: 639431 Client Sample ID Lab Sample ID **Prep Type** Method **Prep Batch** Matrix 400-242702-1 **DSN005 STORM POND** Total/NA Water 300.0 MB 400-639431/5 Total/NA Method Blank Water 300.0 LCS 400-639431/6 Lab Control Sample Total/NA Water 300.0 Lab Control Sample Dup LCSD 400-639431/7 Total/NA Water 300.0 Metals Prep Batch: 639708 Lab Sample ID **Client Sample ID** Prep Type Matrix Method Prep Batch 400-242702-1 **DSN005 STORM POND** Total/NA Water 200.8 MB 400-639708/1-A ^5 Method Blank Total/NA Water 200.8 LCS 400-639708/2-A ^5 Lab Control Sample Total/NA Water 200.8 Analysis Batch: 639911 **Client Sample ID Prep Type** Prep Batch Lab Sample ID Matrix Method **DSN005 STORM POND** 400-242702-1 Total/NA Water 200.8 639708 MB 400-639708/1-A ^5 Method Blank Total/NA Water 200.8 639708 200.8 Total/NA Water 639708 LCS 400-639708/2-A ^5 Lab Control Sample **General Chemistry** Analysis Batch: 639240 Matrix Method **Prep Batch** Lab Sample ID **Client Sample ID Prep Type** 400-242702-1 **DSN005 STORM POND** Total/NA Water 110.2 Total/NA MB 400-639240/1 Method Blank Water 110.2 LCS 400-639240/3 Lab Control Sample Total/NA Water 110.2 Analysis Batch: 639287 Prep Type Method **Prep Batch** Lab Sample ID **Client Sample ID** Matrix 400-242702-1 **DSN005 STORM POND** Total/NA Water SM 5540C Total/NA Water SM 5540C MB 400-639287/3 Method Blank SM 5540C Water LCS 400-639287/4 Lab Control Sample Total/NA Total/NA Water SM 5540C MRL 400-639287/5 Lab Control Sample

Analysis Batch: 639534

Lab Sample ID 400-242702-1	Client Sample ID DSN005 STORM POND	Prep Type Total/NA	Matrix Water	Method SM 4500 Cl G	Prep Batch
MB 400-639534/4	Method Blank	Total/NA	Water	SM 4500 CI G	
LCS 400-639534/5	Lab Control Sample	Total/NA	Water	SM 4500 CI G	
MRL 400-639534/3	Lab Control Sample	Total/NA	Water	SM 4500 CI G	

Analysis Batch: 639739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242702-1	DSN005 STORM POND	Total/NA	Water	Nitrogen,Org	

Prep Batch: 639817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242702-1	DSN005 STORM POND	Total/NA	Water	351.2	
MB 400-639817/1-A	Method Blank	Total/NA	Water	351.2	
LCS 400-639817/2-A	Lab Control Sample	Total/NA	Water	351.2	

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### **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242702-1 SDG: Form 2F Table C

### **General Chemistry**

Analysis Batch: 640062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242702-1	DSN005 STORM POND	Total/NA	Water	351.2	639817
MB 400-639817/1-A	Method Blank	Total/NA	Water	351.2	639817
LCS 400-639817/2-A	Lab Control Sample	Total/NA	Water	351.2	639817
MRL 400-640062/10	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 640135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242702-1	DSN005 STORM POND	Total/NA	Water	350.1	
MB 400-640135/24	Method Blank	Total/NA	Water	350.1	
LCS 400-640135/25	Lab Control Sample	Total/NA	Water	350.1	
MRL 400-640135/18	Lab Control Sample	Total/NA	Water	350.1	

### **Biology**

Analysis Batch: 639338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242702-1	DSN005 STORM POND	Total/NA	Water	SM 9222D	
MB 400-639338/1	Method Blank	Total/NA	Water	SM 9222D	
LCS 400-639338/2	Lab Control Sample	Total/NA	Water	SM 9222D	
400-242702-1 DU	DSN005 STORM POND	Total/NA	Water	SM 9222D	

RL

1.0

Job ID: 400-242702-1 SDG: Form 2F Table C

Prep Type: Total/NA

Prep Type: Total/NA

Dil Fac

### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-639431/5

**Matrix: Water** 

Analysis Batch: 639431

Analyte

MR MR

Result Qualifier < 0.39

MDL Unit 0.39 mg/L Prepared

Analyzed 08/31/23 18:36

Client Sample ID: Method Blank

Lab Sample ID: LCS 400-639431/6

Matrix: Water

Sulfate

Analysis Batch: 639431

Analyte Sulfate

Spike Added 10.0

Result Qualifier 9 20

LCS LCS

Unit %Rec 92 mg/L

Limits 90 - 110

%Rec

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-639431/7

Matrix: Water

Sulfate

Analysis Batch: 639431

Analyte

Spike Added 10.0

LCSD LCSD Result Qualifier 9 60

LCS LCS

Unit %Rec 96 mg/L

RPD %Rec Limits RPD Limit 90 - 110

Prep Type: Total/NA

15

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 400-639708/1-A ^5

Matrix: Water

Analysis Batch: 639911

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 639708

IAID	MID							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.014		0.025	0.014	mg/L		09/05/23 12:05	09/06/23 07:10	5
< 0.079		0.13	0.079	mg/L		09/05/23 12:05	09/06/23 07:10	5
< 0.041		0.13	0.041	mg/L		09/05/23 12:05	09/06/23 07:10	5
<0.0088		0.020	0.0088	mg/L		09/05/23 12:05	09/06/23 07:10	5
	Result <0.014 <0.079 <0.041	Result   Qualifier	Result         Qualifier         RL           <0.014	Result Qualifier   RL   MDL	Result   Qualifier   RL   MDL   Unit	Result   Qualifier   RL   MDL   Unit   D	Result         Qualifier         RL         MDL         Unit         D         Prepared           <0.014	Result 0.014         Qualifier         RL         MDL mg/L         D mg/L         Prepared 09/05/23 12:05         Analyzed 09/06/23 07:10           <0.079

Lab Sample ID: LCS 400-639708/2-A ^5

Matrix: Water

Analysis Batch: 639911

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 639708

%Rec Limits 85 - 115

85 - 115

85 - 115

85 - 115

Client Sample ID: Method Blank

Prepared

Added Result Qualifier Unit D %Rec Analyte 0.500 0.445 mg/L 89 Aluminum 92 5.00 4.59 mg/L Iron 90 5.00 4 48 mg/L Magnesium 97 0.0500 0.0483 mg/L Zinc

Spike

#### Method: 110.2 - Color, Colorimetric

Lab Sample ID: MB 400-639240/1

Matrix: Water

pH at time of analysis

Analysis Batch: 639240

Result Qualifier Analyte < 5.0 Color

MB MB

5.97

5.0 0.010

RL

MDL Unit 5.0 Color Units 0.010 SU

Dil Fac Analyzed

Prep Type: Total/NA

08/30/23 20:25 08/30/23 20:25

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Method: 350 1 - Nitrogen Ammonia

Lab Sample ID: LCS 400-640135/25

### Method: 110.2 - Color, Colorimetric (Continued)

Lab Sample ID: LCS 400-639240/3 Matrix: Water				Client	Sai	mple ID	: Lab Control Sample Prep Type: Total/NA
Analysis Batch: 639240	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Color	35.0	34.0		Color Units	_	97	90 - 110

Client Sample ID: Lab Control Sample

metriou. 550.1 - Mitrogen	, Allillionia								
Lab Sample ID: MB 400-6401	35/24						Client Sam	ple ID: Method	
Matrix: Water								Prep Type: To	otal/NA
Analysis Batch: 640135									
all the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of th	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.024		0.050	0.024	mg/L			09/07/23 15:08	
enter									

Matrix: Water							Prep Type: Total/NA
Analysis Batch: 640135							
	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Ammonia	3.00	2.98		mg/L		99	90 - 110

Lab Sample ID: MRL 400-640135/18 Matrix: Water				Clier	nt Sar	mple ID	: Lab Control Sample Prep Type: Total/NA
Analysis Batch: 640135							
	Spike	MRL	MRL				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Ammonia	0.0500	0.0600		mg/L		120	50 - 150

Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia	0.0500	0.0600		mg/L		120	50 - 150	
Method: 351.2 - Nitrogen, Total Kjeldahl								

Lab Sample ID: MB 400-6398 Matrix: Water Analysis Batch: 640062								Prep Type: To Prep Batch:	
Annhan		MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Nitrogen, Kjeldahl	<0.26	Quanner	0.50		mg/L		09/05/23 17:04		1

Lab Sample ID: LCS 400-639817/2-A Matrix: Water Analysis Batch: 640062				Clier	nt Sar	nple ID	: Lab Control Sample Prep Type: Total/NA Prep Batch: 639817
Analysis Daton: 640002	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Nitrogen, Kjeldahl	10.0	10.2		mg/L		102	90 - 110

Lab Sample ID: MRL 400-640062/10 Matrix: Water Analysis Batch: 640062				Clier	nt Sai	mple ID	: Lab Control Sample Prep Type: Total/NA
Allalysis Batch. 040002	Spike	MRL	MRL				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Nitrogen, Kjeldahl	0.500	0.420	J	mg/L		84	50 - 150

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

### Method: SM 4500 Cl G - Chlorine, Residual

Lab Sample ID: MB 400-639534/4

**Matrix: Water** 

Analysis Batch: 639534

MB MB

Analyte

Result Qualifier <0.057

RL 0.10

MDL Unit 0.057 mg/L

Prepared Analyzed 09/01/23 16:27

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

%Rec

Client Sample ID: Method Blank

Dil Fac

Lab Sample ID: LCS 400-639534/5

Matrix: Water

Analysis Batch: 639534

Chlorine, Total Residual

Chlorine, Total Residual

Spike Added 1.17

Result Qualifier 1.20

LCS LCS

Unit ma/L

Limits 103 85 - 115

Lab Sample ID: MRL 400-639534/3

Matrix: Water

Analysis Batch: 639534

Chlorine, Total Residual

Spike Added 0.117

MRI MRI Result Qualifier 0.130

Unit ma/L

%Rec 111

%Rec Limits 50 150

Client Sample ID: Method Blank

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 400-639287/3

**Matrix: Water** 

Analysis Batch: 639287

MR MB

Analyte Result Qualifier MBAS - Surfactants < 0.067

RI 0.10

**MDL** Unit 0.067 mg/I LAS MW 340

Prepared

Analyzed 08/31/23 08:30

Prep Type: Total/NA

Prep Type: Total/NA

Dil Fac

Lab Sample ID: LCS 400-639287/4

Lab Sample ID: MRL 400-639287/5

Matrix: Water

Analysis Batch: 639287

Analyte MBAS - Surfactants

Spike Added 0.500

LCS LCS Result Qualifier 0.533

Unit mg/I LAS MW 340

%Rec 107

%Rec Limits

Client Sample ID: Lab Control Sample Prep Type: Total/NA

75.125

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Matrix: Water Analysis Batch: 639287

Analyte MBAS - Surfactants

Analyte

Coliform, Fecal

Spike Added 0.100

MRI MRI Result Qualifier 0.123

Unit mg/L

Limits D %Rec

123

%Rec

Prep Type: Total/NA

Method: SM 9222D - Coliforms, Fecal (Membrane Filter)

Lab Sample ID: MB 400-639338/1

Matrix: Water Analysis Batch: 639338

MR MR

Result Qualifier <1.0

RL 1.0 **MDL** Unit 1.0 CFU/100mL Prepared

Analyzed 08/30/23 13:12

**Dil Fac** 

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### **QC Sample Results**

Client: International Paper Company

Job ID: 400-242702-1 SDG: Form 2F Table C Project/Site: Riverdale Mill

### Method: SM 9222D - Coliforms, Fecal (Membrane Filter) (Continued)

Lab Sample ID: 400-242702-1 DU Client Sample ID: DSN005 STORM POND Matrix: Water Prep Type: Total/NA

Analysis Batch: 639338

		Sample	Sample	DU	DU				RPD
	Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
1	Coliform, Fecal	38000	JHH3	34800	J	CFU/100mL	_	8	50

#### **Eurofins Pensacola**

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

### **Chain of Custody Record**



💸 eurofins

**Environment Testing** 

Client Information	Sampler CA21	AC.	PLADE	Lab F Whit	tmire, Ch	neyen	ne R	_	400	-242	702 (	coc	rackin	g No(s)		COC No 400-122360-41792.1
Carla Pearson	Phone 33	1-418	-523	E-Ma	il yenne.W	/hitmi	reme	euro	finsus	com	7	-	Origin	AL		Page Page 1 of 1
ompany'	1 00	1 110	PWSID:	Olle	yerine.vv	THUI I	i e (g) e i			-				,		Job#:
nternational Paper Company  ddress	Due Date Request	ed:			65	-		7	naly	/sis	Req	uest	ed	1 1 1	- Inde	Preservation Codes:
01 County Road 78									13						9	M - Hexane
aty selma	TAT Requested (da	ays):	SAP		24				П							B - NaOH O - AsNaO2
tate, Zip	Compliance Project															D - Nitric Acid Q - Nitric Acid Q - Nitric Acid
L, 36703	PO #	ct: A res	a No						П				dual			F - MeOH S - H2SO4
34-418-5236(Tel)	16969625 WO#				10)							- 1	Residua			H - Ascorbic Acid U - Acetone U - Acetone
Carla.Pearson@ipaper.com					NO:		Beta		1	ZN			Total		0	J - DI Water V - MCAA W - pH 4-5
roject Name form 2F Table C	Project #: 40016047				i (V)		Super Super		fate	MG & Z		-	orline,			L-EDA Y-Trizma
RIVERDALE MILL	SSOW#.				產		900.0 - Gross Alpha & Gro 350.1, 351.2, Nitropen.Oro		28D - Sulfate	F,	2	, Fecal	SM4500_Chlor_B - Chlorine		George	Other:
NUCATION				Matrix	Sibe	903.0, 903.0_TAR	Nitro		A_28D	-AL,	- Surfactants	form	P P		经	
			Sample Type	(Wewater,	Filter	903.0	900.0 - Gross 150.1, 351.2.	110.2 - Colo	ORGFM	CWA	- Sur	- Colifo	5		를	
	Sample Date	Sample Time	(C≔comp, G=grab)	Smaolid, Omezaste/oil,	pjej	03.0,	50.1.	10.2	0 00	8.00	540C	9222D	M450		44	Special Instructions/Note:
ample Identification	Sample Date			BT-Tissue, A-Air)	XX		Š			7	S.			3 4	N X	Manager instructions/Note:
DSHOOS STORM POND	82923	2:50	G	Water							V				4	
11	11	11	G	Water		X									1	
	14	11	6	11				1.				1	X			
11	11	11	9	11	П		1	1							ž.	
11	11	11	6	11	$\Pi$		X	1								
11	11	11	G	16	H			1	1	X			+			
il	11	()	G	11		+		X	1	-		1				
11	11	11		11	H	+	+	+	X	-	-	+	-			
	110	11	GG	11	H	-	+	+	M	-		X	+		180	
11		- 1	9	1,	H	-	+	+	-			4	-	-		
						_	-	1	-			_	_			<u> </u>
Possible Hazard Identification  Non-Hazard Flammable Skin Irritant	Paines O		Padialana	,	Sam	ple D	ispos ium To	sal ( A	fee i	may [			ed if s al B <u>v</u> L			ed longer than 1 month) hive For Months
Deliverable Requested I, II, III, IV, Other (specify)	UISON B UNKI	IOWII	Radiologica		Spec	cial In	struct	ions/	QC Re	equire			1	- 1	MOY	
Empty Kit Relinquished by		Date <sup>-</sup>		-	Time <sup>-</sup>	_	_			_	-			f Shipment	iiwi	mo majose
	Date/Time		Tille	Company	100	Becey	ed py.		7	7	1		.1.1	Date/Tings:	12-	23 7:45 Companyon C
- Selwoor	Date/Time 30	120	7:45	P-PNE	POHUE	Recen	M	WA	4	اللا	4	144	MA	Date/Time	120	Someon Company
Relinquished by	Date fille			Company		X	un	nu	re	u	u	1			30/2	23 455
Relinquished by	Date/Time			Company	1	Receive	ed by	0	1					Date/Time.		Company
Custody Seals Intact: Custody Seal No.:	211-27	1				Cooler	Tempe	rature(	s) °C ar	nd Oth	er Rem	narks	_	-00	7	7.10
Δ Yes Δ No	36637	1											0	5°C	40	Ver: 06/08/2021





















### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242702-1

SDG Number: Form 2F Table C

Login Number: 242702 List Source: Eurofins Pensacola

List Number: 1

Creator: Roberts, Alexis J

Oreator. Nobelta, Alexia o		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5°C IR10
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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### **Accreditation/Certification Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242702-1 SDG: Form 2F Table C

### Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	<b>US Federal Programs</b>	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

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## **ANALYTICAL REPORT**

## PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703

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### JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table C

### JOB NUMBER

400-242702-2

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

Page 1 of 16



### **Eurofins Pensacola**

### **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

### **Authorization**

hymaxwhitmire

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Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

### SDG: Form 2F Table C

## **Table of Contents**

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Sample Summary	•
Client Sample Results	•
Definitions	,
Chronicle	)
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QC Sample Results	1
Chain of Custody	3
Receipt Checklists	4
Certification Summary	6

#### **Case Narrative**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242702-2 SDG: Form 2F Table C

Job ID: 400-242702-2

Laboratory: Eurofins Pensacola

**Narrative** 

Job Narrative 400-242702-2

#### Receipt

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.5°C

#### **Gas Flow Proportional Counter**

Method 900.0: Gross Alpha and Gross Beta batch 626541. The detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: (870-20321-C-1-A) and (870-20321-C-1-D DU). Analytical results are reported with the detection limit achieved

Method 900.0: Gross Alpha and Gross Beta batch 626541, Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DSN005 STORM POND (400-242702-1), (LCS 160-626541/2-A), (LCSB 160-626541/3-A), (MB 160-626541/1-A), (870-20321-C-1-A), (870-20321-C-1-D DU), (870-20321-C-1-B MS) and (870-20321-C-1-C MSBT)

Method 903.0: Radium-226 Prep Batch 160-626832. The following sample was prepared at a reduced aliquot due to Matrix: DSN005 STORM POND (400-242702-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 903.0: Radium-226 batch 626832. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DSN005 STORM POND (400-242702-1), (LCS 160-626832/2-A), (LCSD 160-626832/3-A) and (MB 160-626832/1-A)

Method 903.0 TAR: Total Alpha Radium Prep Batch 160-626835. The following sample was prepared at a reduced aliquot due to Matrix: DSN005 STORM POND (400-242702-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 903.0 TAR: Total Alpha Radium batch 626835. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. DSN005 STORM POND (400-242702-1), (LCS 160-626835/2-A), (LCSD 160-626835/3-A) and (MB 160-626835/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

### **Method Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: SDG: Fo

400-242702-2	NO.
orm 2F Table C	

Method	Method Description	Protocol	Laboratory
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
903.0	Total Alpha Radium (GFPC)	EPA	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

#### **Protocol References:**

EPA = US Environmental Protection Agency None = None

#### Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

### Sample Summary

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242702-2 SDG: Form 2F Table C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242702-1	DSN005 STORM POND	Water	08/29/23 14:50	08/30/23 11:55

### **Client Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242702-2 SDG: Form 2F Table C

Client Sample ID: DSN005 STORM POND

Date Collected: 08/29/23 14:50

Lab Sample ID: 400-242702-1

**Matrix: Water** 

Date Received: 08/30/23 11:55	
Mothod: EDA 900 0 - Groce Alpha and (	Proce Bota Padioactivity

1000 Deta	Itadiodol
Count	Total
Uncert.	Uncert.

			Ollocia	Ollocia						
Analyte	Result	Qualifier	(2σ+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.560	U	1.04	1.05	3.00	1.83	pCi/L	09/05/23 10:47	09/25/23 20:08	1
Gross Beta	2.02		0.671	0.701	4.00	0.869	pCi/L	09/05/23 10:47	09/25/23 20:08	1

Method: EPA 90	3.0 - Radium	-226 (GFP	C)							
			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.148	U	0.107	0.108	1.00	0.154	pCi/L	09/06/23 10:34	09/28/23 20:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9	***************************************	30 - 110					09/06/23 10:34	09/28/23 20:35	1

			Count Uncert.	Total Uncert.						
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Total Alpha Radium	0.222		0.123	0.124	1.00	0.157	pCi/L	09/06/23 10:37	09/22/23 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		30 - 110					09/06/23 10:37	09/22/23 14:56	1

### **Definitions/Glossary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242702-2 SDG: Form 2F Table C

0

#### Qualifiers

Rad
Qualifier

**Qualifier Description** 

UF

Result is less than the sample detection limit.

5

#### 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
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)
LOD Limit of Detection (DoD/DOE)
LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

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)

TNTC Too Numerous To Count

### **Lab Chronicle**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242702-2

SDG: Form 2F Table C

Client Sample ID: DSN005 STORM POND

Date Collected: 08/29/23 14:50 Date Received: 08/30/23 11:55 Lab Sample ID: 400-242702-1

**Matrix: Water** 

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	Evaporation			200.01 mL	1.0 g	626541	09/05/23 10:47	ASG	EET SL
Total/NA	Analysis	900.0		1			629491	09/25/23 20:08	FLC	EET SL
Total/NA	Prep	PrecSep_0			748.60 mL	1.0 g	626835	09/06/23 10:37	KAC	EET SL
Total/NA	Analysis	903.0		1			629278	09/22/23 14:56	SCB	EET SL
Total/NA	Prep	PrecSep-21			748.60 mL	1.0 g	626832	09/06/23 10:34	KAC	EET SL
Total/NA	Analysis	903.0		1			629977	09/28/23 20:35	FLC	EET SL

**Laboratory References:** 

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

### **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242702-2 SDG: Form 2F Table C Ø

#### Rad

Prep	Batch:	626541
------	--------	--------

	Lab Sample ID 400-242702-1	Client Sample ID DSN005 STORM POND	Prep Type Total/NA	Matrix Water	Method Evaporation	Prep Batch
	MB 160-626541/1-A	Method Blank	Total/NA	Water	Evaporation	
	LCS 160-626541/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
-	LCSB 160-626541/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

#### Prep Batch: 626832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242702-1	DSN005 STORM POND	Total/NA	Water	PrecSep-21	
MB 160-626832/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-626832/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-626832/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

#### Prep Batch: 626835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242702-1	DSN005 STORM POND	Total/NA	Water	PrecSep_0	
MB 160-626835/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-626835/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-626835/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

### QC Sample Results

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242702-2 SDG: Form 2F Table C

### Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-626541/1-A

**Matrix: Water** 

Analysis Batch: 629491

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 626541

			Count	Total						
	MB	MB	Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.3114	U	0.623	0.624	3.00	1.25	pCi/L	09/05/23 10:47	09/25/23 16:26	1
Gross Beta	-0.4878	U	0.497	0.499	4.00	0.970	pCi/L	09/05/23 10:47	09/25/23 16:26	1

Lab Sample ID: LCS 160-626541/2-A

Matrix: Water

Analysis Batch: 629491

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 626541

				Total						
	Spike	LCS	LCS	Uncert.					%Rec	
Analyte	Added	Result	Qual	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	
Gross Alpha	49.6	43.66		6.72	3.00	1.87	pCi/L	88	75 - 125	

LCSB LCSB

Result Qual

67.39

**Spike** 

Added

72.6

Total

Uncert.

 $(2\sigma + / -)$ 

7.27

RL

4.00

**MDC** Unit

0.975 pCi/L

Lab Sample ID: LCSB 160-626541/3-A

Matrix: Water

Analyte

**Gross Beta** 

Analysis Batch: 629491

Client Sample ID: Lab Control Sample

93

Prep Type: Total/NA

Prep Batch: 626541

%Rec %Rec Limits

75 - 125

### Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-626832/1-A

Client Sample ID: Method Blank

Matrix: Water Analysis Batch	: 629974								Prep Type: To Prep Batch: (	
		мв	Count Uncert.	Total Uncert.						
Analyte		Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.01683	U	0.0628	0.0628	1.00	0.130	pCi/L	09/06/23 10:34	09/28/23 20:30	1
	MB	MB								
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.4		30 - 110					09/06/23 10:34	09/28/23 20:30	1

Lab Sample ID: LCS 160-626832/2-A

Matrix: Water

Analysis Batch: 629974

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 626832

					Total						
		Spike	LCS	LCS	Uncert.					%Rec	
ĺ	Analyte	Added	Result	Qual	(2σ+/-)	RL	MDC	Unit	%Rec	Limits	
	Radium-226	11.3	11.21		1.15	1.00	0.105	pCi/L	99	75 - 125	

LCS LCS

Carrier %Yield Qualifier 30 - 110 83.6 Ba Carrier

Client Sample ID: Method Blank

Job ID: 400-242702-2

### Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCSD 160-626832/3-A Client Sample ID: Lab Control Sample Dup Matrix: Water Prep Type: Total/NA Analysis Batch: 629974 **Prep Batch: 626832** Total

LCSD LCSD Spike Uncert. %Rec RER Analyte Added Result Qual  $(2\sigma + / -)$ RL **MDC** Unit %Rec Limits RER Limit Radium-226 1.00 0.0972 pCi/L 11.3 12.50 1.30 110 75 - 125 0.53

LCSD LCSD Carrier %Yield Qualifier Limits Ba Carrier 30 - 110 85.9

Lab Sample ID: MB 160-626835/1-A

#### Method: 903.0 - Total Alpha Radium (GFPC)

**Matrix: Water** Prep Type: Total/NA Analysis Batch: 629278 Prep Batch: 626835 Count Total MB MB Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + / -)$  $(2\sigma + / -)$ RL **MDC** Unit Prepared Analyzed Dil Fac Total Alpha Radium 0.05128 U 0.0732 0.0734 1.00 0.124 pCi/L 09/06/23 10:37 09/22/23 14:55

MB MB Qualifier Limits Prepared Analyzed Carrier %Yield Dil Fac 30 - 110 09/06/23 10:37 09/22/23 14:55 Ba Carrier 84.4

Lab Sample ID: LCS 160-626835/2-A **Matrix: Water** 

Analysis Batch: 629278

Prep Batch: 626835 **Total** Spike LCS LCS Uncert. %Rec (20+/-) **Analyte** Added Result Qual RL MDC Unit %Rec Limits Total Alpha 11.3 11.86 1.22 1.00 0.126 pCi/L 105 75 - 125 Radium

LCS LCS Carrier %Yield Qualifier Limits Ba Carrier 83.6 30-110

Lab Sample ID: LCSD 160-626835/3-A

Matrix: Water

Analysis Batch: 629278

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 626835

**Total** RER LCSD LCSD Uncert. %Rec Spike RL **MDC** Unit %Rec Limits RFR Limit Added Result Qual  $(2\sigma + /-)$ **Analyte** 11.3 11.80 1.21 1.00 0.101 pCi/L 104 75-125 0.03 Total Alpha Radium

LCSD LCSD %Yield Qualifier Limits Carrier 30 - 110 85.9 Ba Carrier

#### **Eurofins Pensacola**

3355 McLemore Drive Pensacola, FL 32514

### **Chain of Custody Record**



🕸 eurofins |

**Environment Testing** 

Phone. 850-474-1001 Fax: 850-478-2671																
Client Information	Sampler CAPLA C. PEARSON   Phone 384-418-5236					Mire, Cheyenne R 400-242702 COC racking No(s)										COC No 400-122360-41792.1
lient Contact Carla Pearson	Phone 33	Che									Page Page 1 of 1					
ompany nternational Paper Company	PWSID				Analysis Requested									Job#:		
ddress	Due Date Request	ed:			3	Т	T	T	1				1		1 10	Preservation Codes:
01 County Road 78	TAT Requested (d	ays):	200												C.S.	A - HCL M - Hexane N - None
elma tate, Zip	-	H	SAP										П			C - Zn Acetate P - Na2O4S
L, 36703	Compliance Proje	ct: A Yes	Δ No										Tes .		1	E - NaHSO4 Q - Na2SO3 R - Na2S2O3 F - MeOH S - H2SO4
hone 134-418-5236(Tel)	PO # 16969625				(6								teside		8	G - Amchlor H - Ascorbic Acid U - Acetone
mall Carla.Pearson@ipaper.com	WO#				Sample (Yestor No)	Beta		i		_			Total Residual		8-	J - DI Water V - MCAA
roject Name orm 2F Table C	Project #: 40016047				()	Gross	_		et e	8 & ZN				4.1		K-EDTA Y-Trizma Z-other (specify)
	40016047 SSOW#:					nd	o,net		- Sulfate	FE, MG		Fecal	Chlor_B - Chlorine,			Other:
RIVERDALE MILL	-				BSB 194	Alph	Nitro		28D	AL, F	ctant	ошв,	B. B.		100	
	1		Sample Type	Matrix (www.ater,	Ilter.	03.0, 903.0_TAR 00.0 - Gross Alpha	350.1, 351.2, Nitrogen, Org	Color	300_ORGFM_28D	CWA-	Surf	Coll		+ 1		
		Sample	(C=comp,	S=solid, O=waste/ell,	Pield	903.0,	50.1,	110.2 - Color	00	90.8	540C	3222D	SM4500		1957 2757	
Sample Identification	Sample Date	Time	G=grab)	BT-Tlasue, A-Air	XX	6 6	Š	1	Contractor	2	Si No					Special Instructions/Note:
DEN OOS STORM POND	82923	2:50	G	Water				2.08.00		-848	V	ARBY			1	
11	11	11	G	Water		X										
11	11	10	6	11				1.					X		*	
11	11	11	6	11			V	1								
10	11	11	6	11		V		1								
10	11	((	6	16					1	X						
1(	16	13	G	11				X								
11	11	11		11		1			X							
1(	11	1(	9	11					V			X	$\exists$		1	
			19			+	+	+				* 1	7			
					111	+	+	+	$\vdash$			$\dashv$		+		
Possible Hazard Identification					Sam	ple Di	spos	al (A	fee	may	be as	ssess	sed if	sample	s are retain	ned longer than 1 month)
Non-Hazard Flammable Skin Irritant	Poison B Unk	nown -	Radiologica	1		Retu	m To	Clie	nt		$\neg_{\scriptscriptstyle D}$	ispos	sal By	Lab	Arc	hive For Months
Deliverable Requested I, II, III, IV, Other (specify)					Spec	ial Ins	truction	ons/C	QC Re	equire	emen		44	ter	IMO	nth, dispose
Empty Kit Relinquished by		Date <sup>-</sup>			Time.					_				of Shipme		
Relinquished by:	Date/Ties 30	23	7:45	IP-PINE	POALE	BCOTE	ilst	Th	4	S D	Q.S	JU.	ence	Q Date/	18/30	23 7:45 ° " Bya (
Relinquished by:	Date/Time	1		Company	R	ecened	h.	1111	06	,,	10	1	)	Date/	ime./	23 1/55 Company
Relinquished by	Date/Time			Company	R	eceived	by	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	Tu			_		Date/		Company
Custody Seals Intact: Custody Seal No.:	21127					cooler Te	empera	ature/s	s) °C ar	nd Oth	er Ren	narks				
Δ Yes Δ No	36637	1											5	. 5	CZO	P 10 Ver: 06/08/2021























### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242702-2

SDG Number: Form 2F Table C

List Source: Eurofins Pensacola

Login Number: 242702

List Number: 1

Creator: Roberts, Alexis J

oreator. Nobelts, Alexis 3		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5°C IR10
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Page 14 of 16

### **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242702-2

SDG Number: Form 2F Table C

List Source: Eurofins St. Louis List Creation: 09/01/23 03:00 PM

Login Number: 242702 List Number: 2

Creator: Pinette, Meadow L

Creator. Pillette, Meadow L		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	

N/A

Residual Chlorine Checked.

# **Accreditation/Certification Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242702-2 SDG: Form 2F Table C

2

# Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
laska (UST)	State	20-001	05-06-25
NAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
lowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
ouisiana	NELAP	04080	06-30-22 *
ouisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	10-01-23
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Virginia	NELAP	10310	06-15-25
West Virginia DEP	State	381	10-31-23

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703

# JOB DESCRIPTION

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Riverdale Mill SDG NUMBER Form 2F Table C

# **JOB NUMBER**

400-242684-1

Eurofins Pensacola 3355 McLemore Drive Pensacola FL 32514



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12 13

# Eurofins Pensacola

## **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

# **Authorization**

heyendewhitmine

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Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-242684-1 SDG: Form 2F Table C

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#### **Case Narrative**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242684-1 SDG: Form 2F Table C

Job ID: 400-242684-1

Laboratory: Eurofins Pensacola

**Narrative** 

Job Narrative 400-242684-1

#### Receipt

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C

Method 200.8\_CWA: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-639708 and analytical batch 400-639911 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

#### **General Chemistry**

Method 350.1: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 400-640135 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 351.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-639817 and analytical batch 400-640062 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 4500\_CL\_G: The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: DSN006 STORM POND (400-242684-1).

#### Biology

Method 9222D: The following sample was received outside of holding time: DSN006 STORM POND (400-242684-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# **Detection Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-1

SDG: Form 2F Table C

# Client Sample ID: DSN006 STORM POND

Lab Sample ID: 400-242684-1										
Dil Fac	D	Method	Prep Type							
1	_	300.0	Total/NA							
5		200.8	Total/NA							
5		200.8	Total/NA							

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	13		1.0	0.39	mg/L	1	_	300.0	Total/NA
Aluminum	0.073		0.025	0.014	mg/L	5	1	200.8	Total/NA
Iron	0.19		0.13	0.079	mg/L	5		200.8	Total/NA
Magnesium	3.8		0.13	0.041	mg/L	5		200.8	Total/NA
Color	42		5.0	5.0	Color Units	1		110.2	Total/NA
pH at time of analysis	8.2		0.010	0.010	SU	1		110.2	Total/NA
Ammonia	0.14		0.050	0.024	mg/L	1		350.1	Total/NA
Nitrogen, Kjeldahl	0.63		0.50	0.26	mg/L	1		351.2	Total/NA
Nitrogen, Total Organic	0.49	J	0.50	0.26	mg/L	1		Nitrogen, Org	Total/NA
Chlorine, Total Residual	0.060	JH	0.10	0.057	mg/L	1		SM 4500 CI G	Total/NA
MBAS - Surfactants	0.10		0.10	0.067	mg/I LAS MW 340	1		SM 5540C	Total/NA
Coliform, Fecal	4300	H H3	1.0	1.0	CFU/100mL	1		SM 9222D	Total/NA

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# **Method Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-1 SDG: Form 2F Table C

Method	Method Description	Protocol	Laboratory
0.00	Anions, Ion Chromatography	EPA	EET PEN
8.00	Metals (ICP/MS)	EPA	EET PEN
10.2	Color, Colorimetric	EPA	EET PEN
350.1	Nitrogen, Ammonia	EPA	EET PEN
351.2	Nitrogen, Total Kjeldahl	EPA	EET PEN
litrogen,Org	Nitrogen, Organic	EPA	EET PEN
M 4500 CI G	Chlorine, Residual	SM	EET PEN
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	EET PEN
SM 9222D	Coliforms, Fecal (Membrane Filter)	SM	EET PEN
8.00.8	Preparation, Total Metals	EPA	EET PEN
51.2	Nitrogen, Total Kieldahl	EPA	EET PEN

#### **Protocol References:**

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

#### **Laboratory References:**

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

# **Sample Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242684-1

SDG: Form 2F Table C

Lab Sample ID Client Sample ID Matrix Collected Received DSN006 STORM POND 400-242684-1 Water 08/29/23 15:10 08/30/23 11:55

# **Client Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-1

SDG: Form 2F Table C

Client Sample ID: DSN006 STORM POND

Date Collected: 08/29/23 15:10 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242684-1

**Matrix: Water** 

Method: EPA 300.0 - Anions, le	on Chromat	ography							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	13		1.0	0.39	mg/L			08/31/23 20:35	1

Sulfate	13		1.0	0.39	mg/L			08/31/23 20:35	1
Method: EF	PA 200.8 - Metals (ICP/MS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.073		0.025	0.014	mg/L		09/05/23 12:05	09/06/23 10:10	5

Analyte	Leanir	Qualifier	IX.	MIDE	OHIL	D	riepaieu	Allalyzeu	DII Fac
Aluminum	0.073		0.025	0.014	mg/L		09/05/23 12:05	09/06/23 10:10	5
Iron	0.19		0.13	0.079	mg/L		09/05/23 12:05	09/06/23 10:10	5
Magnesium	3.8		0.13	0.041	mg/L		09/05/23 12:05	09/06/23 10:10	5
Zinc	<0.0088		0.020	0.0088	mg/L		09/05/23 12:05	09/06/23 10:10	5

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
Color (EPA 110.2)	42		5.0	5.0	Color Units		08/30/23 20:25	1
pH at time of analysis (EPA 110.2)	8.2		0.010	0.010	SU		08/30/23 20:25	1
Ammonia (EPA 350.1)	0.14		0.050	0.024	mg/L		09/07/23 15:14	1
Nitrogen, Kjeldahl (EPA 351.2)	0.63		0.50	0.26	mg/L	09/05/23 17:08	09/06/23 16:25	1
Nitrogen, Total Organic (EPA Nitrogen, Org)	0.49	J	0.50	0.26	mg/L		09/05/23 13:10	1
Chlorine, Total Residual (SM 4500 CI G)	0.060	JH	0.10	0.057	mg/L		09/01/23 16:27	1
MBAS - Surfactants (SM 5540C)	0.10		0.10	0.067	mg/I LAS MW 340		08/31/23 08:30	1

Method: SM 9222D - Coliform	s, Fecal (Me	mbrane Filte	er)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	4300	н нз	1.0	1.0	CFU/100mL			08/30/23 13:54	1

# **Definitions/Glossary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-1 SDG: Form 2F Table C

2

# Qualifiers

**NEG** 

POS

**PQL** 

QC

RL RPD

TEF

TEQ

**TNTC** 

**RER** 

**PRES** 

General C	hemistry
-----------	----------

Qualifier	Qualifier Description	
Н	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Biology		
Qualifier	Qualifier Description	
Н	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.	
110	Course was received and exchange and holding time. This does not made any later, any immedia	

2

H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
Glossary	· ·
Abbreviation	These commonly used abbreviations may or may not be present in this report.
В	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)

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Too Numerous To Count

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Negative / Absent

Positive / Present

Presumptive Quality Control

**Practical Quantitation Limit** 

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

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## Lab Chronicle

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-1

SDG: Form 2F Table C

Client Sample ID: DSN006 STORM POND

Date Collected: 08/29/23 15:10 Date Received: 08/30/23 11:55 Lab Sample ID: 400-242684-1

**Matrix: Water** 

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL	10 mL	639431	08/31/23 20:35	LHB	EET PEN
Total/NA	Prep	200.8			50 mL	50 mL	639708	09/05/23 12:05	MS	EET PEN
Total/NA	Analysis	200.8		5			639911	09/06/23 10:10	NTH	EET PEN
Total/NA	Analysis	110.2		1			639240	08/30/23 20:25	DEK	EET PEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	640135	09/07/23 15:14	CAC	EET PEN
Total/NA	Prep	351.2			25 mL	25 mL	639817	09/05/23 17:08	VB	EET PEN
Total/NA	Analysis	351.2		1			640062	09/06/23 16:25	KWS	EET PEN
Total/NA	Analysis	Nitrogen, Org		1			639739	09/05/23 13:10	KWS	EET PEN
Total/NA	Analysis	SM 4500 CI G		1	10 mŁ	10 mL	639534	09/01/23 16:27	CAC	EET PEN
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	639287	08/31/23 08:30	SF	EET PEN
Total/NA	Analysis	SM 9222D		1			639338 Completed:	08/30/23 13:54 08/31/23 13:07		EET PEN

<sup>&</sup>lt;sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

#### **Laboratory References:**

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

# **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242684-1 SDG: Form 2F Table C

# HPLC/IC

<b>Analysis</b>	Batch:	639431
-----------------	--------	--------

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	300.0	
MB 400-639431/5	Method Blank	Total/NA	Water	300.0	
LCS 400-639431/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-639431/7	Lab Control Sample Dup	Total/NA	Water	300.0	

## Metals

# Prep Batch: 639708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	200.8	
MB 400-639708/1-A ^5	Method Blank	Total/NA	Water	200.8	
LCS 400-639708/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	

# 4 5 6 7 8 9

# Analysis Batch: 639911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	200.8	639708
MB 400-639708/1-A ^5	Method Blank	Total/NA	Water	200.8	639708
LCS 400-639708/2-A ^5	Lab Control Sample	Total/NA	Water	200.8	639708

1

# **General Chemistry**

#### Analysis Batch: 639240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	110.2	
MB 400-639240/1	Method Blank	Total/NA	Water	110.2	
LCS 400-639240/3	Lab Control Sample	Total/NA	Water	110.2	

#### Analysis Batch: 639287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	SM 5540C	
MB 400-639287/3	Method Blank	Total/NA	Water	SM 5540C	
LCS 400-639287/4	Lab Control Sample	Total/NA	Water	SM 5540C	
MRL 400-639287/5	Lab Control Sample	Total/NA	Water	SM 5540C	
400-242684-1 MS	DSN006 STORM POND	Total/NA	Water	SM 5540C	
400-242684-1 MSD	DSN006 STORM POND	Total/NA	Water	SM 5540C	

# Analysis Batch: 639534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	SM 4500 CI G	
MB 400-639534/4	Method Blank	Total/NA	Water	SM 4500 CI G	
LCS 400-639534/5	Lab Control Sample	Total/NA	Water	SM 4500 CI G	
MRL 400-639534/3	Lab Control Sample	Total/NA	Water	SM 4500 CI G	

#### Analysis Batch: 639739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	Nitrogen, Org	

## Prep Batch: 639817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	351.2	
MB 400-639817/1-A	Method Blank	Total/NA	Water	351.2	
LCS 400-639817/2-A	Lab Control Sample	Total/NA	Water	351.2	

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# **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242684-1 SDG: Form 2F Table C

2

# **General Chemistry**

Analysis Batch: 640062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	351.2	639817
MB 400-639817/1-A	Method Blank	Total/NA	Water	351.2	639817
LCS 400-639817/2-A	Lab Control Sample	Total/NA	Water	351.2	639817
MRL 400-640062/10	Lab Control Sample	Total/NA	Water	351.2	

#### Analysis Batch: 640135

Lab Sample ID	Cilent Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	350.1	
MB 400-640135/24	Method Blank	Total/NA	Water	350.1	
LCS 400-640135/25	Lab Control Sample	Total/NA	Water	350.1	
MRL 400-640135/18	Lab Control Sample	Total/NA	Water	350.1	

# Biology

Analysis Batch: 639338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	SM 9222D	
MB 400-639338/1	Method Blank	Total/NA	Water	SM 9222D	
LCS 400-639338/2	Lab Control Sample	Total/NA	Water	SM 9222D	

Job ID: 400-242684-1 SDG: Form 2F Table C

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

**RPD** 

Dil Fac

# Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-639431/5

Matrix: Water

Analysis Batch: 639431

MR MR

Analyte Result

Sulfate < 0.39

Qualifier RL

1.0

**MDL** Unit 0.39 mg/L Prepared

Analyzed 08/31/23 18:36

Client Sample ID: Lab Control Sample

%Rec

Client Sample ID: Method Blank

Lab Sample ID: LCS 400-639431/6

Matrix: Water

Analysis Batch: 639431

Analyte Sulfate

Spike Added 10.0

LCS LCS Result 9.20

Qualifier

MDL Unit

0.041 mg/L

0.0088 mg/L

mg/L

mg/L

0.014

0.079

LCS LCS

0.445

4.59

4.48

0.0483

Result Qualifier

Unit mg/L

Limits %Rec

96

Prepared

D %Rec

89

92

90

90-110 Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-639431/7

Matrix: Water

Sulfate

Iron

**Aluminum** 

Iron

Analysis Batch: 639431

Analyte

Spike Added 10.0

LCSD LCSD Result Qualifier 9.60

RL

0.025

0.13

0.13

0.020

Spike

Added

0.500

5.00

5.00

0.0500

Unit %Rec ma/L

%Rec Limits 90 - 110

RPD Limit

Dil Fac

5

5

5

5

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 400-639708/1-A ^5

**Matrix: Water** 

Analysis Batch: 639911

Client Sample ID: Method Blank Prep Type: Total/NA

Analyzed

Prep Batch: 639708

MR MR Analyte Result Qualifier Aluminum < 0.014

< 0.041 Magnesium <0.0088

Lab Sample ID: LCS 400-639708/2-A ^5

< 0.079

09/05/23 12:05 09/06/23 07:10 Client Sample ID: Lab Control Sample

%Rec

Limits

85-115

85 - 115

85-115

85-115

Client Sample ID: Method Blank

09/05/23 12:05 09/06/23 07:10

09/05/23 12:05 09/06/23 07:10

09/05/23 12:05 09/06/23 07:10

Prep Type: Total/NA Prep Batch: 639708

Matrix: Water

Analysis	Batch:	639911	
Analyte			

Magnesium Zinc

Method: 110.2 - Color, Colorimetric

Lab Sample ID: MB 400-639240/1

Analysis Batch: 639240

pH at time of analysis

**Matrix: Water** 

Result Analyte <5.0 Color

MB MB Qualifier

5.0 0.010 5.97

0.010 SU

**MDL** Unit Prepared 5.0 Color Units

Unit

mg/L

mg/L

mg/L

mg/L

Analyzed

08/30/23 20:25 08/30/23 20:25

Prep Type: Total/NA

Eurofins Pensacola

Dil Fac

RL

# Method: 110.2 - Color, Colorimetric (Continued)

Lab Sample ID: LCS 400-639240/3 Matrix: Water

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 639240

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit %Rec Limits Color 35.0 Color Units 90 - 110 34.0 97

# Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 400-640135/24

Client Sample ID: Method Blank Prep Type: Total/NA

Analysis Batch: 640135

**Matrix: Water** 

мв мв

Dil Fac Analyte Result Qualifier RL MDL Unit **Prepared** Analyzed Ammonia < 0.024 0.050 0.024 mg/L 09/07/23 15:08

Lab Sample ID: LCS 400-640135/25

**Matrix: Water** 

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Analysis Batch: 640135

LCS LCS %Rec Spike Added Result Qualifier %Rec Limits Unit Ammonia 3.00 2.98 mg/L 99 90 \_ 110

Lab Sample ID: MRL 400-640135/18 Client Sample ID: Lab Control Sample

> MB MB Result

Matrix: Water

Analysis Batch: 640135

Spike MRL MRL %Rec Limits Analyte Added Result Qualifier Unit D %Rec 0.0500 50 - 150 Ammonia 0.0600 mg/L 120

## Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 400-639817/1-A

Matrix: Water

Analyte

Analysis Batch: 640062

Client Sample ID: Method Blank Prep Type: Total/NA

**Prep Batch: 639817** 

Prep Type: Total/NA

< 0.26 Nitrogen, Kjeldahl

Qualifier MDL Unit 09/05/23 17:04 09/06/23 16:08 0.50 0.26 ma/L

Analyzed Dil Fac

Lab Sample ID: LCS 400-639817/2-A Matrix: Water

Analysis Batch: 640062

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 639817

Spike LCS LCS %Rec Added Result Qualifier Unit %Rec Limits Analyte 10.0 10.2 mg/L 102 Nitrogen, Kjeldahl

90 - 110

Lab Sample ID: MRL 400-640062/10

Matrix: Water

Analysis Batch: 640062

Client Sample ID: Lab Control Sample Prep Type: Total/NA

%Rec MRL MRL Spike Limits Result Qualifier Unit %Rec Added Analyte 50 - 150 0.500 0.420 J mg/L 84 Nitrogen, Kjeldahl

Job ID: 400-242684-1 SDG: Form 2F Table C

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

## Method: SM 4500 Cl G - Chlorine, Residual

Lab Sample ID: MB 400-639534/4

**Matrix: Water** 

Analysis Batch: 639534

MR MR

Analyte

Result Qualifier < 0.057

RL **MDL** Unit 0.10 0.057 mg/L

Prepared

Dil Fac Analyzed 09/01/23 16:27

Client Sample ID: Method Blank

Lab Sample ID: LCS 400-639534/5

**Matrix: Water** 

Chlorine, Total Residual

Analysis Batch: 639534

**Analyte** Chlorine, Total Residual

Spike Added 1.17

LCS LCS Result Qualifier 1.20

Unit mg/L

%Rec Limits 103 85 - 115 Client Sample ID: Lab Control Sample

Lab Sample ID: MRL 400-639534/3

Matrix: Water

Analysis Batch: 639534

Chlorine, Total Residual

Spike Added 0.117

MRI MRI Result Qualifier 0.130

Unit D %Rec 111 mg/L

%Rec Limits 50 - 150

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

%Rec

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 400-639287/3

**Matrix: Water** 

Analysis Batch: 639287

MR MB

Result Qualifier Analyte MBAS - Surfactants < 0.067

RL 0.10

MDI Unit 0.067 mg/I LAS MW 340

Prepared

Analyzed Dil Fac 08/31/23 08:30

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Lab Sample ID: LCS 400-639287/4

Matrix: Water

Analysis Batch: 639287

Analyte MBAS - Surfactants

Spike Added 0.500

0.533

LCS LCS Result Qualifier

Unit %Rec 107 ma/I LAS MW 340

Unit

mg/L

Unit

mg/I LAS

MW 340

%Rec Limits 90 - 110

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

%Rec

Limits

Client Sample ID: DSN006 STORM POND

75 - 125

Spike

0.100

Added

Lab Sample ID: MRL 400-639287/5

Matrix: Water

Analysis Batch: 639287

Analyte MBAS - Surfactants

Lab Sample ID: 400-242684-1 MS **Matrix: Water** 

Analysis Batch: 639287

**Analyte** 

MBAS - Surfactants 0.10

Sample Sample Result Qualifier

Spike Added 0.500

MS MS Result Qualifier 0.499

MRI MRI

0.123

Result Qualifier

%Rec 79

D %Rec

123

%Rec Limits 70 - 130

**Eurofins Pensacola** 

# QC Sample Results

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242684-1

SDG: Form 2F Table C

# Method: SM 5540C - Methylene Blue Active Substances (MBAS) (Continued)

Client Sample ID: DSN006 STORM POND Lab Sample ID: 400-242684-1 MSD **Matrix: Water** 

Prep Type: Total/NA

Analysis Batch: 639287	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
MBAS - Surfactants	0.10		0.500	0.518		mg/I LAS MW 340		83	70 - 130	4	30

# Method: SM 9222D - Coliforms, Fecal (Membrane Filter)

Client Sample ID: Method Blank Lab Sample ID: MB 400-639338/1 **Matrix: Water** 

Prep Type: Total/NA

Analysis Batch: 639338

MB MB

Analyzed Dil Fac Result Qualifier RL MDL Unit Prepared Analyte 08/30/23 13:12 1.0 1.0 CFU/100mL Coliform, Fecal <1.0

#### **Eurofins Pensacola**

3355 McLemore Drive Pensacola, FL 32514

# **Chain of Custody Record**



eurofins |

**Environment Testing** 

ent Information	CAP	AC.	EARS		mire, Chey	enne	R			400-2	4268	4 COC	(s)		COC No 400-121859-4179	2.1
nt Contact la Pearson	Phone 334	-418-	-5236	Chey	enne.Whit	mire(	get.eur	ofinsu	s.com	1			Al	_	Page. Page 1 of 1	
pany rnational Paper Company			PWSID						vsis		uest	ed			Job #	
ess County Road 78	Due Date Request	ed:			<b>基</b>	П		T						6	Preservation Code	s: M - Hexane
County Nobal 10	TAT Requested (d.	ays):	AD												B - NaOH	N - None O - AsNaO2
ma e, Zip		48	AL		2										D - Nitric Acid	P - Na2O4S Q - Na2SO3
36703 ne	Compliance Project	ct: A Yes	Δ No									3			F - MeOH	R - Na2S2O3 S - H2SO4
I-418-5236(Tel)	16969625				(NG)							Resk		6	H - Ascorbic Acid	T - TSP Dodecahydrate U - Acetone
il la Pearson@ipaper.com	WO #:					Beta			2			Total			J - DI vvater	V - MCAA W - pH 4-5
la Pearson@ipaper.com ect Name m 2F Table C	Project #: 40016047				10000	Gross	2	ate	MG & ZN		=	rine,		8	1 504	Y - Trizma Z - other (specify)
RIVERDALE MILL	SSOW#:				ample	ha & G		O - Sulfate	H.	nts	s, Fecal	a - Chlorine		a de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la consta	Other:	
			Sample Type	Matrix (W=water, S=solid,	STELLISTERS OF TAIL OF TAIL	- Gross Alg	, 351.2, Mitrogen	ORGFM 28D	CWA-AL,	C - Surfacta	Colifo	500_Chior_B		in the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of the little of		
mple Identification	Sample Date	Sample Time	(C≍comp, G=grab)	O=waste/oil, BT=Tiasue, A=Air)	Eleldi Series	- 0.006	350.1, 3	300	200.8	5540	9222D	SM4			Special Ins	tructions/Note:
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Non-Hazard Flammable Skin Imtant	Poison B Unk	nown	Radiologica	ıl .												
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# **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242684-1

SDG Number: Form 2F Table C

Login Number: 242684
List Number: 1
List Source: Eurofins Pensacola

Creator: Roberts, Alexis J

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	COC not relinquished.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# **Accreditation/Certification Summary**

Client: International Paper Company Project/Site: Riverdale Mill

SDG: Form 2F Table C

Job ID: 400-242684-1

# Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
Alabama	State	40150	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
ouisiana (All)	NELAP	30976	06-30-24
ouisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	<b>US Federal Programs</b>	A22340	06-30-24
USDA	<b>US Federal Programs</b>	P330-21-00056	05-17-24
USDA	<b>US Federal Programs</b>	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

# **ANALYTICAL REPORT**

# PREPARED FOR

Attn: Carla Pearson International Paper Company 601 County Road 78 Selma, Alabama 36703

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# JOB DESCRIPTION

Riverdale Mill SDG NUMBER Form 2F Table C

# **JOB NUMBER**

400-242684-2

**Eurofins Pensacola** 3355 McLemore Drive Pensacola FL 32514

See page two for job notes and contact information.

Page 1 of 16



# **Eurofins Pensacola**

# **Job Notes**

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

# **Authorization**

hitmine

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Authorized for release by Cheyenne Whitmire, Project Manager II Cheyenne.Whitmire@et.eurofinsus.com (850)471-6222

Client: International Paper Company Project/Site: Riverdale Mill

Laboratory Job ID: 400-242684-2 SDG: Form 2F Table C

# **Table of Contents**

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eceipt Checklists	
ertification Summary	









#### **Case Narrative**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-2

SDG: Form 2F Table C

Job ID: 400-242684-2

Laboratory: Eurofins Pensacola

**Narrative** 

Job Narrative 400-242684-2

#### Receipt

The sample was received on 8/30/2023 11:55 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C

#### **Gas Flow Proportional Counter**

Method 900.0: Gross Alpha and Gross Beta batch 626541. The detection goal was not met for the following samples due to a reduction of the sample size attributed to high residual mass: (870-20321-C-1-A) and (870-20321-C-1-D DU). Analytical results are reported with the detection limit achieved.

Method 900.0: Gross Alpha and Gross Beta batch 626541, Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.DSN006 STORM POND (400-242684-1), (LCS 160-626541/2-A), (LCSB 160-626541/3-A), (MB 160-626541/1-A), (870-20321-C-1-A), (870-20321-C-1-D DU), (870-20321-C-1-B MS) and (870-20321-C-1-C MSBT)

Method 903.0: Radium-226 Prep Batch 160-626832. The following sample was prepared at a reduced aliquot due to Matrix: DSN006 STORM POND (400-242684-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 903.0: Radium-226 batch 626832. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date DSN006 STORM POND (400-242684-1), (LCS 160-626832/2-A), (LCSD 160-626832/3-A) and (MB 160-626832/1-A)

Method 903.0\_TAR: Total Alpha Radium Prep Batch 160-626835. The following sample was prepared at a reduced aliquot due to Matrix: DSN006 STORM POND (400-242684-1). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method 903.0\_TAR: Total Alpha Radium batch 626835. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.DSN006 STORM POND (400-242684-1), (LCS 160-626835/2-A), (LCSD 160-626835/3-A) and (MB 160-626835/1-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# **Method Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-2 SDG: Form 2F Table C

Method	Method Description	Protocol	Laboratory
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	EET SL
903.0	Radium-226 (GFPC)	EPA	EET SL
903.0	Total Alpha Radium (GFPC)	EPA	EET SL
Evaporation	Preparation, Evaporation	None	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

#### **Protocol References:**

EPA = US Environmental Protection Agency None = None

#### **Laboratory References:**

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# Sample Summary

Client: International Paper Company Project/Site: Riverdale Mill

Job ID: 400-242684-2

SDG: Form 2F Table C

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242684-1	DSN006 STORM POND	Water	08/29/23 15:10	08/30/23 11:55

# **Client Sample Results**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-2

SDG: Form 2F Table C

Client Sample ID: DSN006 STORM POND

Date Collected: 08/29/23 15:10 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242684-1

**Matrix: Water** 

Method: EPA 900.0 - Gross Alpha and	<b>Gross Beta Radioactivity</b>
-------------------------------------	---------------------------------

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	1.32	U	1.66	1.67	3.00	2.76	pCi/L	09/05/23 10:47	09/25/23 20:08	1
Gross Beta	5.52		1.05	1.19	4.00	1.14	pCi/L	09/05/23 10:47	09/25/23 20:08	1

Method: EPA 903		-10 (0	Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(20+/-)	(20+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0368	U	0.0663	0.0663	1.00	0.119	pCi/L	09/06/23 10:34	09/28/23 20:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		30 - 110					09/06/23 10:34	09/28/23 20:33	1

			Count Uncert	Total Uncert.						
Analyte	Result	Qualifier	(20+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Total Alpha Radium	0.123	U	0.106	0.106	1.00	0.159	pCi/L	09/06/23 10:37	09/22/23 14:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		30 - 110					09/06/23 10:37	09/22/23 14:56	1

# **Definitions/Glossary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-2 SDG: Form 2F Table C

#### Qualifiers

Rac	ŀ
	_

U

Qualifier **Qualifier Description** 

Result is less than the sample detection limit.



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
Percent Recovery
Contains Free Liquid
Colony Forming Unit
Contains No Free Liquid
Duplicate Error Ratio (normalized absolute difference)
Dilution Factor
Detection Limit (DoD/DOE)
Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
Decision Level Concentration (Radiochemistry)
Estimated Detection Limit (Dioxin)
Limit of Detection (DoD/DOE)
Limit of Quantitation (DoD/DOE)
EPA recommended "Maximum Contaminant Level"
Minimum Detectable Activity (Radiochemistry)
Minimum Detectable Concentration (Radiochemistry)
Method Detection Limit
Minimum Level (Dioxin)

MPN

Not Calculated

Most Probable Number

Method Quantitation Limit

Not Detected at the reporting limit (or MDL or EDL if shown) ND

Negative / Absent NEG Positive / Present POS

**Practical Quantitation Limit PQL** 

**PRES** Presumptive QC **Quality Control** 

Relative Error Ratio (Radiochemistry) RER

Reporting Limit or Requested Limit (Radiochemistry) RL

Relative Percent Difference, a measure of the relative difference between two points **RPD** 

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TEQ **TNTC** Too Numerous To Count

## Lab Chronicle

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-2

SDG: Form 2F Table C

Client Sample ID: DSN006 STORM POND

Date Collected: 08/29/23 15:10 Date Received: 08/30/23 11:55

Lab Sample ID: 400-242684-1

**Matrix: Water** 

Prep Type Total/NA Total/NA	Type Prep Analysis	Method Evaporation 900.0	Run	Dil Factor	Amount 171.97 mL	Amount 1.0 g	Batch Number 626541 629491	Prepared or Analyzed 09/05/23 10:47 09/25/23 20:08	Analyst ASG FLC	Lab EET SL EET SL
Total/NA Total/NA	Prep Analysis	PrecSep_0 903.0		1	746.48 mL	1.0 g	626835 629278	09/06/23 10:37 09/22/23 14:56		EET SL
Total/NA Total/NA	Prep Analysis	PrecSep-21 903.0		1	746.48 mL	1.0 g	626832 629974	09/06/23 10:34 09/28/23 20:33		EET SL

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# **QC Association Summary**

Client: International Paper Company Project/Site: Riverdale Mill

SDG: Form 2F Table C

Job ID: 400-242684-2

-	
D 2	
17.0	

Prep	Batch:	626541
------	--------	--------

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	Evaporation	
MB 160-626541/1-A	Method Blank	Total/NA	Water	Evaporation	
LCS 160-626541/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSB 160-626541/3-A	Lab Control Sample	Total/NA	Water	Evaporation	

## Prep Batch: 626832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242684-1	DSN006 STORM POND	Total/NA	Water	PrecSep-21	
MB 160-626832/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-626832/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-626832/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

## Prep Batch: 626835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
400-242684-1	DSN006 STORM POND	Total/NA	Water	PrecSep_0	
MB 160-626835/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-626835/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-626835/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep 0	

# QC Sample Results

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-2

SDG: Form 2F Table C

# Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-626541/1-A

**Matrix: Water** 

Analysis Batch: 629491

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 626541

				Count	Total						
		MB	MB	Uncert.	Uncert.						
	Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Gross Alpha	-0.3114	U	0.623	0.624	3.00	1.25	pCi/L	09/05/23 10:47	09/25/23 16:26	1
-	Gross Beta	-0.4878	U	0.497	0.499	4.00	0.970	pCi/L	09/05/23 10:47	09/25/23 16:26	1

Lab Sample ID: LCS 160-626541/2-A

Matrix: Water

Analysis Batch: 629491

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

**Prep Batch: 626541** 

Total LCS LCS Spike Uncert. %Rec Added RL MDC Unit Limits **Analyte** Result Qual  $(2\sigma + / -)$ %Rec Gross Alpha 49.6 43.66 6.72 3.00 1.87 pCi/L 88 75 - 125

Lab Sample ID: LCSB 160-626541/3-A

**Matrix: Water** 

Analysis Batch: 629491

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 626541

Total LCSB LCSB %Rec Spike Uncert. Analyte Added Result Qual  $(2\sigma + / -)$ RL **MDC** Unit %Rec Limits 67.39 7.27 4.00 0.975 pCi/L 75 - 125 **Gross Beta** 

## Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-626832/1-A

Matrix: Water

Analysis Batch: 629974

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 626832

Total Count MB MB Uncert. Uncert. Result Qualifier  $(2\sigma + /-)$  $(2\sigma + / -)$ RL MDC Unit **Prepared Analyzed Dil Fac** Analyte 0.0628 0.0628 1.00 0.130 pCi/L 09/06/23 10:34 09/28/23 20:30 Radium-226 -0.01683 U MB MB Limits Prepared Analyzed Dil Fac Carrier %Yield Qualifier Ba Carrier 84.4 30 - 110 09/06/23 10:34 09/28/23 20:30

Lab Sample ID: LCS 160-626832/2-A

Matrix: Water

Analysis Batch: 629974

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 626832

Total LCS LCS %Rec Uncert. Spike Limits RL **MDC** Unit %Rec Added Result Qual  $(2\sigma + /-)$ Analyte 75 - 125 1.15 1.00 0.105 pCi/L 99 Radium-226 11.3 11.21

LCS LCS

%Yield Qualifier Limits Carrier 30 - 110 Ba Carrier 83.6

Analysis Batch: 629974

**Matrix: Water** 

Ba Carrier

Carrier

Ba Carrier

Method: 903.0 - Radium-226 (GFPC) (Continued)

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 626832 Total

LCSD LCSD Spike Uncert. RER %Rec Analyte Added Result Qual  $(2\sigma + 1 - 1)$ RL **MDC** Unit %Rec Limits Limit RER Radium-226 1.30 1.00 0.0972 pCi/L 11.3 12.50 110 75 - 125 0.53

LCSD LCSD Carrier %Yield Qualifier Limits 30 - 110 Ba Carrier 85.9

Lab Sample ID: LCSD 160-626832/3-A

Method: 903.0 - Total Alpha Radium (GFPC)

%Yield Qualifier

85.9

Lab Sample ID: MB 160-626835/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 629278 Prep Batch: 626835 Total Count

MB MB Uncert. Uncert. Analyte Result Qualifier  $(2\sigma + 1 - 1)$  $(2\sigma + 1 - 1)$ RL **MDC** Unit Prepared Analyzed Dil Fac 0.0734 1.00 0.124 pCi/L 09/06/23 10:37 09/22/23 14:55 Total Alpha Radium 0.05128 U 0.0732

MB MB Limits Carrier %Yield Qualifier Prepared Analyzed Dil Fac 30 - 110 09/06/23 10:37 09/22/23 14:55 Ba Carrier 84.4

Lab Sample ID: LCS 160-626835/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Prep Batch: 626835 Analysis Batch: 629278 Total

Spike LCS LCS Uncert. %Rec  $(2\sigma + / -)$ RL **MDC** Unit %Rec Limits Analyte Added Result Qual 1.22 1.00 0.126 pCi/L 105 75 - 125 **Total Alpha** 11.3 11.86

Radium LCS LCS Carrier %Yield Qualifier Limits 83.6 30 - 110

Limits

30-110

Lab Sample ID: LCSD 160-626835/3-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA **Matrix: Water** 

Prep Batch: 626835 Analysis Batch: 629278

Total LCSD LCSD Uncert. %Rec RER Spike Added Result Qual  $(2\sigma + / -)$ RL **MDC** Unit %Rec Limits RER Limit Analyte

11.3 11.80 1.21 1.00 0.101 pCi/L 104 75 - 125 0.03 Total Alpha Radium LCSD LCSD

#### **Eurofins Pensacola**

3355 McLemore Drive Pensacola, FL 32514

# **Chain of Custody Record**



💸 eurofins

**Environment Testing** 

Phone: 850-474-1001 Fax: 850-478-2671												-					
Client Information	Sampler CAPI	AC.	PEARS		mire, Che	yenne	e R				400-2	2426	84 CO			COC No 400-121859-41792	.1
Client Contact Carla Pearson	Phone 334	-418-	-5231	Chey	renne.Whi	itmire	e@et.e	eurof	finsus	.com	1			A	-	Page. Page 1 of 1	
company.		1.0	PWSID										4-4			Job #	
nternational Paper Company	Due Date Request	ad:			~	_	-	TA	naly	SIS	Req	ues	teu	-	T los	Preservation Codes:	
01 County Road 78	Due Date Request	ou.							1						1 1	A HCI M	- Hexane
oddress 501 County Road 78 City Selma State, Zip	TAT Requested (da	ays):	AD													B - NaOH	- None - AsNaO2
jelma	-	118	MY		200												- Na2O4S - Na2SO3
LL, 36703	Compliance Project	ct: A Yes	Δ No										-			E-NaHSO4	- Na2S2O3
AL, 36703	PO #:				2				1				Residua		1	G - Amchlor	- H2SO4 - TSP Dodecahydrate
734-418-5236(Tel)	16969625 WO #:				No			1				1			10	H - Ascorbic Acid	- Acatone
mail Carla Pearson@ipaper.com	VVO #.					Beta			1	-			Total		100	J - DI Water	- MCAA / - pH 4-5
roject Name	Project #:				9	Gross	_		9	MG & ZN					9	K-EDTA Y	- Trizma
form 2F Table C	40016047				100	5	0,0		ulfat	MG		Facal	Chlorine		100	Other:	- other (specify)
RIVERDALE MILL	SSOW#:								28D - Sulfate	F	nts	S, Fe	B .		100	Other:	
MACADI OCT III CO				Madala	TA PA	s Alpha				-AL,	Surfactants	Coliforms,	Chlor		100		
			Sample	Matrix (w==uer,	Fillibite	Gross	350.1, 351.2,	900	300_ORGFM		Sur	Coli			1		
		Sample	Type (C=comp,	S=solid, O=waste/oil,		0	1,3	110.2 - Colo	8	200.8 CWA	90	9222D -	SM4500		2		
Sample Identification	Sample Date	Time		BT=Tissue, A=Air)	Elèldi 903.0.	900.0	350	5	30	200	5540C				P.		uctions/Note:
Mary Spinesses Community (1989)			Preserv	nos Cole		D.	S	ØĮ.	N.	D.	N:	P				S BOOK S	Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Compan
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# **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242684-2

SDG Number: Form 2F Table C

List Source: Eurofins Pensacola

Login Number: 242684 List Number: 1

Creator: Roberts, Alexis J

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	COC not relinquished.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# **Login Sample Receipt Checklist**

Client: International Paper Company

Job Number: 400-242684-2

SDG Number: Form 2F Table C

List Source: Eurofins St. Louis

List Creation: 09/01/23 03:00 PM

Login	Number:	242684
List N	umber: 2	

Creator: Pinette, Meadow L

Cleator. Fillette, Meadow L			
Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td> <td></td>	True		
The cooler's custody seal, if present, is intact.	True		
Sample custody seals, if present, are intact.	True		
The cooler or samples do not appear to have been compromised or tampered with.	True		
Samples were received on ice.	N/A		
Cooler Temperature is acceptable.	True		
Cooler Temperature is recorded.	True		
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		

True N/A

Samples do not require splitting or compositing.

Residual Chlorine Checked.

# **Accreditation/Certification Summary**

Client: International Paper Company

Project/Site: Riverdale Mill

Job ID: 400-242684-2 SDG: Form 2F Table C

## Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	<b>Identification Number</b>	<b>Expiration Date</b>
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-23
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-23
lowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-23
Kentucky (DW)	State	KY90125	12-31-23
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-23
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-23
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO000542020-1	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	10-01-23
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-24
South Carolina	State	85002001	06-30-23 *
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO000542021-14	07-31-24
Vîrginia	NELAP	10310	06-15-25
West Virginia DEP	State	381	10-31-23

<sup>\*</sup> Accreditation/Certification renewal pending - accreditation/certification considered valid.