



February 24, 2022

Ms. Christina McCutcheon
Enforcement Analyst
Arkansas Department of Energy and Environment
Division of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: NPDES Permit AR0033766

Dear Ms. McCutcheon,

This notification serves as the first Progress Report certifying Paragould Light Water and Cable (PLWC) met the Final Effluent WET Lethal Limitations for *P. promelas* and *C. dubia* as set forth in NPDES Permit AR0033766 effective March 1, 2021. See the enclosed data for further details.

If you have questions or need additional information, please contact me at (870) 239-7795 or lellington@paragould.com.

Sincerely,

Lisa Ellington

**Environmental Services Manager** 

**Enclosures** 

# Paragould Light, Water and Cable Wastewater Treatment Plant NPDES Permit AR0033766 Toxicity Progress Report #1 – March 2022

As required by the National Pollutant Discharge Elimination System (NPDES) permit AR0033766 in Part 1.B2, the following information serves as documentation Paragould Light Water and Cable (PLWC) has met requirements of the Final Limitations for *P. promelas* and *C. dubia* Whole Effluent Toxicity (WET) lethal limits as of the effective date of the permit through the most current date of testing listed in the following table. All WET reports referenced below were, or will be, submitted to ADEQ with the corresponding Discharge Monitoring Report (DMR).

Date of Samples	Results	ADEQ Report Date
January 11-13, 2021	No lethal or sub-lethal effects	April 20, 2021
April 12-14, 2021	No lethal or sub-lethal effects	July 14, 2021
July 12-14, 2021	No lethal or sub-lethal effects	October 8, 2021
October 4-6, 2021	No lethal or sub-lethal effects	January 14, 2022
January 10-12, 2022	No lethal or sub-lethal effects	PLWC will submit April 2022

In addition to the information provided in the table above, PLWC has included a summary of analytical results provided by Arkansas Analytical, the contract laboratory selected to conduct WET testing for PLWC.

### **Toxicity Test Results**

Paragould Light, Water & Cable NPDES PERMIT NUMBER: AR0033766 First Quarter 2021 AFIN # 28-00470

Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test Test 1000.0

Ceriodaphnia dubia, Survival and Reproduction Test Test 1002.0

Prepared for: Lisa Ellington

401 Grant Lane

Paragould, Arkansas 72450

Prepared by: Arkansas Analytical, Inc.

8100 National Drive

Little Rock, Arkansas 72209 Lab Number K2101007

Wednesday, January 27, 2021

Ceriodaphnia dubia		Pimephales promelas	
NOEC Survival Parameter: TOP3B	100%	NOEC Survival Parameter: TOP6C	100%
Pass/Fail Survival Parameter: TLP3B	Pass	Pass/Fail Survival Parameter: TLP6C	Pass
NOEC Reproduction Parameter: TPP3B	100%	NOEC Growth Parameter: TPP6C	100%
Pass/Fail Reproduction Parameter: TGP3B	Pass	Pass/Fail Growth Parameter: TGP6C	Pass
%CV Reproduction Parameter: TQP3B	29.1%	%CV Growth Parameter: TQP6C	8.52%
PMSD Reproduction	37.5%	PMSD Growth	12.7%
Chronic Toxicity NOEC Parameter: 51710	Lethality: 100% Sub-lethality: 100%	Chronic Toxicity NOEC Parameter: 51714	Lethality: 100% Sub-lethality: 100%

#### Conclusion

Pimephales promelas, (Method 1000.0): The permit issued to the Paragould Light, Water & Cable, specifies that the critical dilution is 100% effluent. The effluent samples did not exhibit lethal or sublethal effects at the critical dilution, and, as such, passed both portions of the test.

Ceriodaphnia dubia, (Method 1002.0): The permit issued to the Paragould Light, Water & Cable, specifies the critical dilution is 100% effluent. The effluent samples did not exhibit lethal or sublethal effects at the critical dilution, and, as such, passed both portions of the test.

Biomonitoring Analysts: Melissa Bird, Emily Nichols, Jettie Parnell, Tracy Bounds

Reviewed by:

Melissa Bird

Toxicity testing, C. dubia and P. promelas Paragould Light, Water & Cable, Lab # K2101007, Page 3

#### **Toxicity Test Results**

### Paragould Light, Water & Cable NPDES PERMIT NUMBER: AR0033766 Second Quarter 2021 AFIN # 28-00470

Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test Test 1000.0

Ceriodaphnia dubia, Survival and Reproduction Test Test 1002.0

Prepared for: Lisa Ellington
401 Grant Lane

Paragould, Arkansas 72450

Prepared by: Arkansas Analytical, Inc. 8100 National Drive

Little Rock, Arkansas 72209 <u>Lab Number K2104006</u>

Monday, April 26, 2021

Ceriodaphnia dubia		Pimephales promelas	
NOEC Survival Parameter: TOP3B	100%	NOEC Survival Parameter: TOP6C	100%
Pass/Fail Survival Parameter: TLP3B	Pass	Pass/Fail Survival Parameter: TLP6C	Pass
NOEC Reproduction Parameter: TPP3B	100%	NOEC Growth Parameter: TPP6C	100%
Pass/Fail Reproduction Parameter: TGP3B	Pass	Pass/Fail Growth Parameter: TGP6C	Pass
%CV Reproduction Parameter: TQP3B	27.6%	%CV Growth Parameter: TQP6C	9.87%
PMSD Reproduction	40.0%	PMSD Growth	12.5%
Chronic Toxicity NOEC Parameter: 51710	Lethality: 100% Sub-lethality: 100%	Chronic Toxicity NOEC Parameter: 51714	Lethality: 100% Sub-lethality: 100%

#### Conclusion

Pimephales promelas, (Method 1000.0): The permit issued to the Paragould Light, Water & Cable, specifies that the critical dilution is 100% effluent. The effluent samples did not exhibit lethal or sublethal effects at the critical dilution, and, as such, passed both portions of the test.

Ceriodaphnia dubia, (Method 1002.0): The permit issued to the Paragould Light, Water & Cable, specifies the critical dilution is 100% effluent. The effluent samples did not exhibit lethal or sublethal effects at the critical dilution, and, as such, passed both portions of the test.

Biomonitoring Analysts: Melissa Bird, Emily Nichols, Jettie Parnell

Reviewed by:

Melissa Bird

### **Toxicity Test Results**

#### Paragould Light, Water & Cable NPDES PERMIT NUMBER: AR0033766 Third Quarter 2021 AFIN # 28-00470

Fathead Minnow, Pimephales promelas, Larval Survival and Growth Test Test 1000.0

Ceriodaphnia dubia, Survival and Reproduction Test Test 1002.0

Prepared for: Lisa Ellington

401 Grant Lane

Paragould, Arkansas 72450

Prepared by: Arkansas Analytical, Inc.

8100 National Drive

Little Rock, Arkansas 72209

Lab Number K2107003

Wednesday, August 04, 2021

Ceriodaphnia dubia		Pimephales promelas	
NOEC Survival Parameter: TOP3B	100%	NOEC Survival Parameter: TOP6C	100%
Pass/Fail Survival Parameter: TLP3B	Pass	Pass/Fail Survival Parameter: TLP6C	Pass
NOEC Reproduction Parameter: TPP3B	100%	NOEC Growth Parameter: TPP6C	100%
Pass/Fail Reproduction Parameter: TGP3B	Pass	Pass/Fail Growth Parameter: TGP6C	Pass
%CV Reproduction Parameter: TQP3B	17.4%	%CV Growth Parameter: TQP6C	19.5%
PMSD Reproduction	32.3%	PMSD Growth	20.1%
Chronic Toxicity NOEC Parameter: 51710	Lethality: 100% Sub-lethality: 100%	Chronic Toxicity NOEC Parameter: 51714	Lethality: 100% Sub-lethality: 100%

#### Conclusion

Pimephales promelas, (Method 1000.0): The permit issued to the Paragould Light, Water & Cable, specifies that the critical dilution is 100% effluent. The effluent samples did not exhibit lethal or sublethal effects at the critical dilution, and, as such, passed both portions of the test.

Ceriodaphnia dubia, (Method 1002.0): The permit issued to the Paragould Light, Water & Cable, specifies the critical dilution is 100% effluent. The effluent samples did not exhibit lethal or sublethal effects at the critical dilution, and, as such, passed both portions of the test.

Biomonitoring Analysts: Melissa Bird, Camille Foscue, Jettie Parnell, Anna Allcorn

Reviewed by:

Melissa Bird

### **Toxicity Test Results**

### Paragould Light, Water & Cable NPDES PERMIT NUMBER: AR0033766 Fourth Quarter 2021 AFIN # 28-00470

Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test Test 1000.0

Ceriodaphnia dubia, Survival and Reproduction Test Test 1002.0

Prepared for: Lisa Ellington

401 Grant Lane

Paragould, Arkansas 72450

Prepared by: Arkansas Analytical, Inc.

8100 National Drive

Little Rock, Arkansas 72209 <u>Lab Number K2110003</u>

Thursday, October 28, 2021

Ceriodaphnia dubia		Pimephales promelas	
NOEC Survival Parameter: TOP3B	100%	NOEC Survival Parameter: TOP6C	100%
Pass/Fail Survival Parameter: TLP3B	Pass	Pass/Fail Survival Parameter: TLP6C	Pass
NOEC Reproduction Parameter: TPP3B	100%	NOEC Growth Parameter: TPP6C	100%
Pass/Fail Reproduction Parameter: TGP3B	Pass	Pass/Fail Growth Parameter: TGP6C	Pass
%CV Reproduction Parameter: TQP3B	28.2%	%CV Growth Parameter: TQP6C	15.4%
PMSD Reproduction	40.7%	PMSD Growth	16.5%
Chronic Toxicity NOEC Parameter: 51710	Lethality: 100% Sub-lethality: 100%	Chronic Toxicity NOEC Parameter: 51714	Lethality: 100% Sub-lethality: 100%

#### Conclusion

Pimephales promelas, (Method 1000.0): The permit issued to the Paragould Light, Water & Cable, specifies that the critical dilution is 100% effluent. The effluent samples did not exhibit lethal or sublethal effects at the critical dilution, and, as such, passed both portions of the test.

Ceriodaphnia dubia, (Method 1002.0): The permit issued to the Paragould Light, Water & Cable, specifies the critical dilution is 100% effluent. The effluent samples did not exhibit lethal or sublethal effects at the critical dilution, and, as such, passed both portions of the test.

Biomonitoring Analysts: Melissa Bird, Camille Foscue, Jettie Parnell

Reviewed by:

Melissa Rird

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Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test Test 1000.0

Ceriodaphnia dubia, Survival and Reproduction Test Test 1002.0

Prepared for: Lisa Ellington
401 Grant Lane
Paragould, Arkansas 72450

Prepared by: Arkansas Analytical, Inc. 8100 National Drive

Little Rock, Arkansas 72209 <u>Lab Number K2201003</u>

Ceriodaphnia dubia		Pimephales promelas	
NOEC Survival Parameter: TOP3B	100%	NOEC Survival Parameter: TOP6C	100%
Pass/Fail Survival Parameter: TLP3B	Pass	Pass/Fail Survival Parameter: TLP6C	Pass
NOEC Reproduction Parameter: TPP3B	100%	NOEC Growth Parameter: TPP6C	100%
Pass/Fail Reproduction Parameter: TGP3B	Pass	Pass/Fail Growth Parameter: TGP6C	Pass
%CV Reproduction Parameter: TQP3B	37.2%	%CV Growth Parameter: TQP6C	13.0%
PMSD Reproduction	40.1%	PMSD Growth	21.6%
Chronic Toxicity NOEC Parameter: 51710	Lethality: 100% Sub-lethality: 100%	Chronic Toxicity NOEC Parameter: 51714	Lethality: 100% Sub-lethality: 100%

#### Conclusion

Pimephales promelas, (Method 1000.0): The permit issued to the Paragould Light, Water & Cable, specifies that the **critical dilution is 100% effluent**. The effluent samples **did not** exhibit lethal or sublethal effects at the critical dilution, and, as such, **passed** both portions of the test.

Ceriodaphnia dubia, (Method 1002.0): The permit issued to the Paragould Light, Water & Cable, specifies the critical dilution is 100% effluent. The effluent samples did not exhibit lethal or sublethal effects at the critical dilution, and, as such, passed both portions of the test.

Biomonitoring Analysts: Melissa Bird, Jettie Parnell, Camille Foscue

Reviewed by:

Melissa Bird

Toxicity testing, C. dubia and P. promelas Paragould Light, Water & Cable, Lab # K2201003, Page 3