



P.O. Box 9  
Paragould, AR 72451  
Ph: 870.239.7700  
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[paragould.com](http://paragould.com)

February 28, 2023

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 second 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 enclosed data for further details.

If you have any questions or need additional information, please contact me at (870) 239-7723 or [dromine@paragould.com](mailto:dromine@paragould.com)

Sincerely,

David Romine  
Environmental Services Manager

Enclosures

Paragould Light Water & Cable  
Wastewater Treatment Plant  
NPDES Permit AR0033766  
Whole Effluent Toxicity Progress Report #2 – March 2023

As required by the National Pollutant Discharge Elimination System (NPDES) permit AR0033766 in Part 1, Section B, Subsection 2, the following information serves as documentation 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 thru 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).

<b>Date of Samples</b>	<b>Results</b>	<b>ADEQ Report Date</b>
January 10-13, 2022	No Lethal or Sub-lethal effects	April 13, 2022
April 4-7, 2022	No Lethal or Sub-lethal effects ( <i>C. dubia</i> ) Control Failure with Receiving Water ( <i>P. promelas</i> )	July 21, 2022
June 6-9, 2022	No Lethal or Sub-Lethal effects ( <i>P. promelas</i> ) - Resample	July 21, 2022
July 11-14, 2022	No Lethal or Sub-lethal effects	Oct 21, 2022
Oct 3-6, 2022	No Lethal or Sub-lethal effects	January 18, 2023
Jan 9-12, 2023	No Lethal or Sub-lethal effects	PLWC will submit April 2023

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.

# Arkansas Analytical, Inc.

## Toxicity Test Results

**Paragould Light, Water & Cable**  
**NPDES PERMIT NUMBER: AR0033766**  
**First Quarter 2022**  
**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 K2201003**

Monday, January 31, 2022

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## Summary of Results

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### Paragould Light, Water & Cable

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

## Conclusion

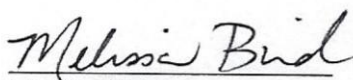
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*Pimephales promelas*, (Method 1000.0): The permit issued to the Paragould Light, Water & Cable, specifies that the **critical dilution is 100% effluent**. The effluent samples **did not** exhibit lethal or sublethal effects at the critical dilution,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

# Arkansas Analytical, Inc.

## Toxicity Test Results

**Paragould Light, Water & Cable**  
**NPDES PERMIT NUMBER: AR0033766**  
**Second Quarter 2022**  
AFIN # 28-00470  
Fathead Minnow Control Failure

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 K2204004**

Monday, April 18, 2022

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## Summary of Results

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### Paragould Light, Water & Cable

<i>Ceriodaphnia dubia</i>		<i>Pimephales promelas</i>	
NOEC Survival Parameter: <b>TOP3B</b>	100%	NOEC Survival Parameter: <b>TOP6C</b>	N/A
Pass/Fail Survival Parameter: <b>TLP3B</b>	Pass	Pass/Fail Survival Parameter: <b>TLP6C</b>	Invalid
NOEC Reproduction Parameter: <b>TPP3B</b>	100%	NOEC Growth Parameter: <b>TPP6C</b>	N/A
Pass/Fail Reproduction Parameter: <b>TGP3B</b>	Pass	Pass/Fail Growth Parameter: <b>TGP6C</b>	Invalid
%CV Reproduction Parameter: <b>TQP3B</b>	36.0%	%CV Growth Parameter: <b>TQP6C</b>	34.0%
PMSD Reproduction	46.2%	PMSD Growth	37.4%
Chronic Toxicity NOEC Parameter: <b>51710</b>	Lethality: 100% Sub-lethality: 100%	Chronic Toxicity NOEC Parameter: <b>51714</b>	N/A

## Conclusion

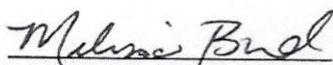
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*Pimephales promelas*, (Method 1000.0): The permit issued to the Paragould Light, Water & Cable, specifies that the **critical dilution is 100% effluent**. Due to a **control failure using receiving water**, the test will have to be **repeated using synthetic water**.

*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, Samantha Denton, Johnny Moline

Reviewed by:

  
Melissa Bird

# Arkansas Analytical, Inc.

## Toxicity Test Results

**Paragould Light, Water & Cable**  
**NPDES PERMIT NUMBER: AR0033766**  
**Fathead Minnow**  
**Second Quarter 2022**  
**AFIN # 28-00470**

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

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

Prepared by: Arkansas Analytical, Inc.  
8100 National Drive  
Little Rock, Arkansas 72209  
**Lab Number K2206005**

Wednesday, June 29, 2022

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## Summary of Results

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### Paragould Light, Water & Cable

<i>Pimephales promelas</i>	
NOEC Survival Parameter: <b>TOP6C</b>	100%
Pass/Fail Survival Parameter: <b>TLP6C</b>	Pass
NOEC Growth Parameter: <b>TPP6C</b>	100%
Pass/Fail Growth Parameter: <b>TGP6C</b>	Pass
%CV Growth Parameter: <b>TQP6C</b>	13.0%
PMSD Growth	17.5%
Chronic Toxicity NOEC Parameter: <b>51714</b>	Lethality: 100% Sub-lethality: 100%

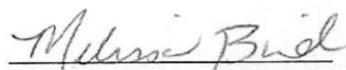
## Conclusion

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*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.

Biomonitoring Analysts: Melissa Bird, Jettie Parnell, Samantha Denton, James Hogue

Reviewed by:

  
Melissa Bird



# Arkansas Analytical, Inc.

## Toxicity Test Results

**Paragould Light, Water & Cable**  
**NPDES PERMIT NUMBER: AR0033766**  
**Third Quarter 2022**  
**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: **David Romine**  
**401 Grant Lane**  
**Paragould, Arkansas 72450**

Prepared by: Arkansas Analytical, Inc.  
8100 National Drive  
Little Rock, Arkansas 72209  
**Lab Number K2207003**

Thursday, July 21, 2022

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## Summary of Results

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### Paragould Light, Water & Cable

<i>Ceriodaphnia dubia</i>		<i>Pimephales promelas</i>	
NOEC Survival Parameter: <b>TOP3B</b>	100%	NOEC Survival Parameter: <b>TOP6C</b>	100%
Pass/Fail Survival Parameter: <b>TLP3B</b>	Pass	Pass/Fail Survival Parameter: <b>TLP6C</b>	Pass
NOEC Reproduction Parameter: <b>TPP3B</b>	100%	NOEC Growth Parameter: <b>TPP6C</b>	100%
Pass/Fail Reproduction Parameter: <b>TGP3B</b>	Pass	Pass/Fail Growth Parameter: <b>TGP6C</b>	Pass
%CV Reproduction Parameter: <b>TQP3B</b>	29.7%	%CV Growth Parameter: <b>TQP6C</b>	7.51%
PMSD Reproduction	22.5%	PMSD Growth	12.8%
Chronic Toxicity NOEC Parameter: <b>51710</b>	Lethality: 100% Sub-lethality: 100%	Chronic Toxicity NOEC Parameter: <b>51714</b>	Lethality: 100% Sub-lethality: 100%

## Conclusion

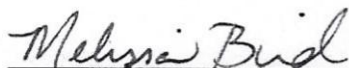
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*Pimephales promelas*, (Method 1000.0): The permit issued to the Paragould Light, Water & Cable, specifies that the **critical dilution is 100% effluent**. The effluent samples **did not** exhibit lethal or sublethal effects at the critical dilution, 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, Samantha Denton

Reviewed by:

  
Melissa Bird

# Arkansas Analytical, Inc.

## Toxicity Test Results

**Paragould Light, Water & Cable**  
**NPDES PERMIT NUMBER: AR0033766**  
**Fourth Quarter 2022**  
**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: **David Romine**  
**401 Grant Lane**  
**Paragould, Arkansas 72450**

Prepared by: Arkansas Analytical, Inc.  
8100 National Drive  
Little Rock, Arkansas 72209  
**Lab Number K2210004**

Wednesday, October 19, 2022

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## Summary of Results

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### Paragould Light, Water & Cable

<i>Ceriodaphnia dubia</i>		<i>Pimephales promelas</i>	
NOEC Survival Parameter: <b>TOP3B</b>	100%	NOEC Survival Parameter: <b>TOP6C</b>	100%
Pass/Fail Survival Parameter: <b>TLP3B</b>	Pass	Pass/Fail Survival Parameter: <b>TLP6C</b>	Pass
NOEC Reproduction Parameter: <b>TPP3B</b>	100%	NOEC Growth Parameter: <b>TPP6C</b>	100%
Pass/Fail Reproduction Parameter: <b>TGP3B</b>	Pass	Pass/Fail Growth Parameter: <b>TGP6C</b>	Pass
%CV Reproduction Parameter: <b>TQP3B</b>	39.6%	%CV Growth Parameter: <b>TQP6C</b>	9.56%
PMSD Reproduction	40.4%	PMSD Growth	17.1%
Chronic Toxicity NOEC Parameter: <b>51710</b>	Lethality: 100% Sub-lethality: 100%	Chronic Toxicity NOEC Parameter: <b>51714</b>	Lethality: 100% Sub-lethality: 100%

## Conclusion

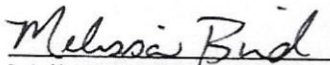
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*Pimephales promelas*, (Method 1000.0): The permit issued to the Paragould Light, Water & Cable, specifies that the **critical dilution is 100% effluent**. The effluent samples **did not** exhibit lethal or sublethal effects at the critical dilution, 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, Samantha Denton

Reviewed by:

  
Melissa Bird

# Arkansas Analytical, Inc.

## Toxicity Test Results

**Paragould Light, Water & Cable**  
**NPDES PERMIT NUMBER: AR0033766**  
**First Quarter 2023**  
**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: **David Romine**  
**401 Grant Lane**  
**Paragould, Arkansas 72450**

Prepared by: Arkansas Analytical, Inc.  
8100 National Drive  
Little Rock, Arkansas 72209  
**Lab Number K2301005**

Friday, January 27, 2023

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## Summary of Results

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### Paragould Light, Water & Cable

<i>Ceriodaphnia dubia</i>		<i>Pimephales promelas</i>	
NOEC Survival Parameter: <b>TOP3B</b>	100%	NOEC Survival Parameter: <b>TOP6C</b>	100%
Pass/Fail Survival Parameter: <b>TLP3B</b>	Pass	Pass/Fail Survival Parameter: <b>TLP6C</b>	Pass
NOEC Reproduction Parameter: <b>TPP3B</b>	100%	NOEC Growth Parameter: <b>TPP6C</b>	100%
Pass/Fail Reproduction Parameter: <b>TGP3B</b>	Pass	Pass/Fail Growth Parameter: <b>TGP6C</b>	Pass
%CV Reproduction Parameter: <b>TQP3B</b>	20.8%	%CV Growth Parameter: <b>TQP6C</b>	12.1%
PMSD Reproduction	22.0%	PMSD Growth	15.1%
Chronic Toxicity NOEC Parameter: <b>51710</b>	Lethality: 100% Sub-lethality: 100%	Chronic Toxicity NOEC Parameter: <b>51714</b>	Lethality: 100% Sub-lethality: 100%

### Conclusion

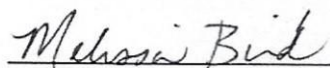
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*Pimephales promelas*, (Method 1000.0): The permit issued to the Paragould Light, Water & Cable, specifies that the **critical dilution is 100% effluent**. The effluent samples **did not** exhibit lethal or sublethal effects at the critical dilution, 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, Jason Bird, Johnny Moline

Reviewed by:

  
Melissa Bird