



May 19, 2020

City Water & Light of Jonesboro
ATTN: Ms. Whitney Young
5205 Ingels Road
Jonesboro, AR 72401

Re: East WWTP
Toxicity Evaluation
American Interplex Corporation Control No: 245047

Dear Ms. Young,

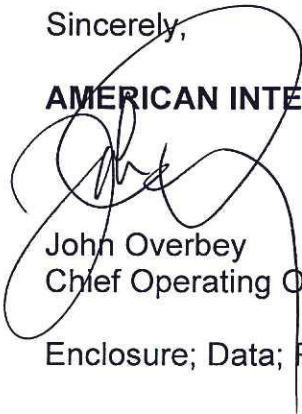
As requested, additional testing of the three outfall composite samples collected from April 19 through 24, 2020 was conducted to evaluate cause of the failure of the previously reported chronic test. All three samples were resubmitted for 48 hour non-renewal toxicity screens utilizing *Ceriodaphnia dubia*. The test design included four replicates of five *Ceriodaphnia dubia* in untreated undiluted sample (baseline) and four replicates of five *Ceriodaphnia dubia* in the undiluted autoclaved sample.

This testing concluded toxicity with the second and third composite sample and no toxicity with the first composite sample or any sample that was autoclaved prior to testing (see attached data). Microscopic examination of the second and third untreated baseline samples after testing revealed numerous protozoa (see attached photomicrograph), while the autoclaved portion contained very few protozoa as expected.

The presence of numerous protozoa may not be the cause of the failure. Currently, the protozoa are the obvious difference between passing and failing the test as the *Ceriodaphnia dubia* survive in the autoclaved sample. It is possible that bacteria or some other biological load could be the cause of the toxicity. The autoclave process involves pressure and heat to sterilize the sample. It is possible that a toxic organic pollutant is reduced during this process. However, no toxic organic pollutants were identified in the previous Toxicity Identification Evaluation Study.

Sincerely,

AMERICAN INTERPLEX CORPORATION



John Overbey
Chief Operating Officer

Enclosure; Data; Photomicrographs

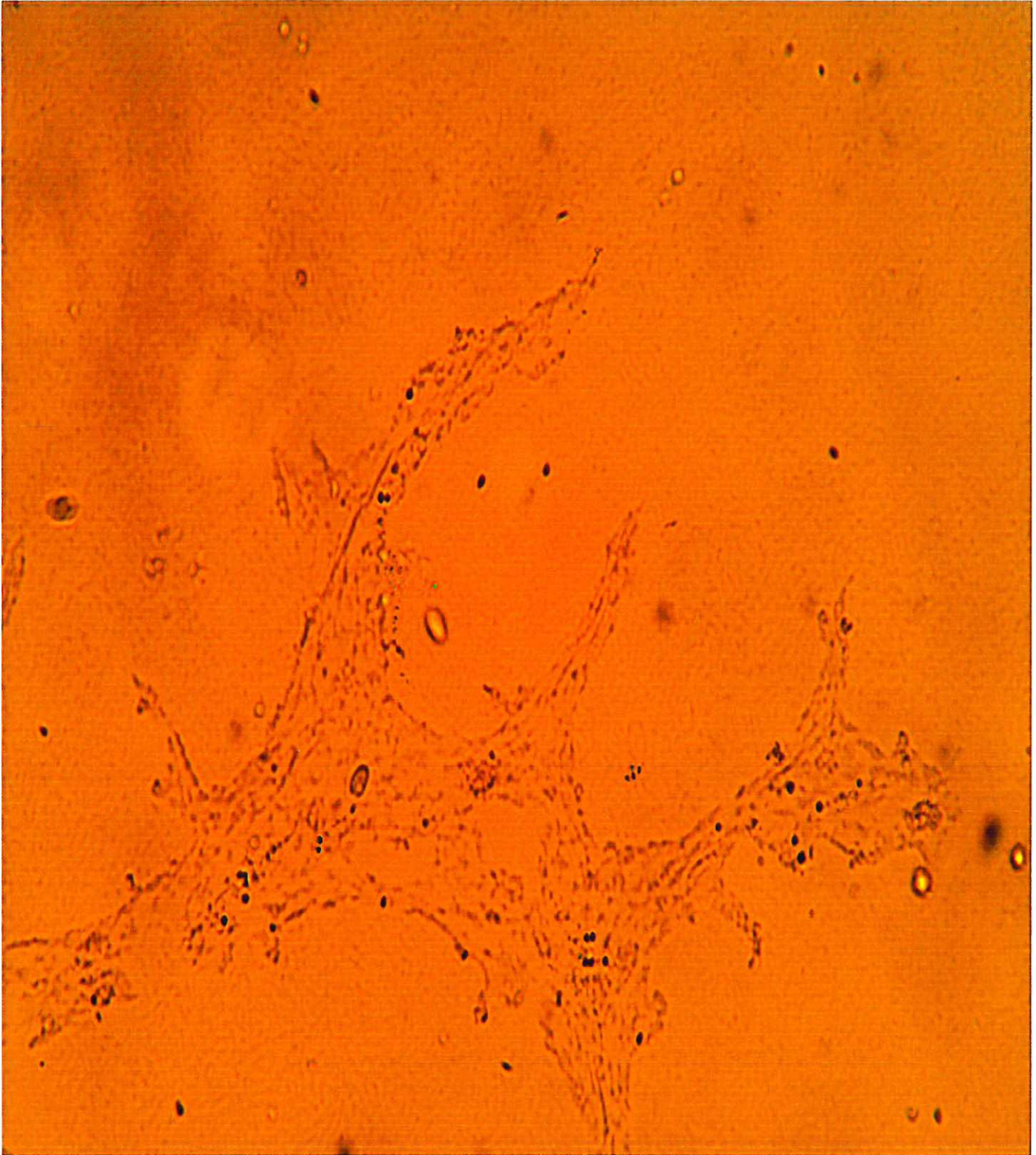
**City Water & Light of Jonesboro
Toxicity Evaluation for Samples from April 19 to 24, 2020**

| Control No. 245047 | | No. Survivors | |
|-------------------------------|--------|---------------|-------|
| | | 24 hr | 48 hr |
| Control Moderately Hard | rep. A | 5 | 5 |
| | rep. B | 5 | 5 |
| | rep. C | 5 | 5 |
| | rep. D | 5 | 5 |
| Baseline 20-Apr-20 | rep. A | 5 | 5 |
| | rep. B | 5 | 5 |
| | rep. C | 5 | 5 |
| | rep. D | 5 | 5 |
| Autoclaved 30 min | rep. A | 5 | 5 |
| | rep. B | 5 | 5 |
| | rep. C | 5 | 5 |
| | rep. D | 5 | 5 |

| Control No. 245126 | | No. Survivors | |
|-------------------------------|--------|---------------|-------|
| | | 24 hr | 48 hr |
| Control Moderately Hard | rep. A | 5 | 5 |
| | rep. B | 5 | 5 |
| | rep. C | 5 | 5 |
| | rep. D | 5 | 5 |
| Baseline 22-Apr-20 | rep. A | 0 | 0 |
| | rep. B | 0 | 0 |
| | rep. C | 0 | 0 |
| | rep. D | 0 | 0 |
| Autoclaved 30 min | rep. A | 5 | 5 |
| | rep. B | 5 | 5 |
| | rep. C | 5 | 5 |
| | rep. D | 5 | 5 |

| Control No. 245127 | | No. Survivors | |
|-------------------------------|--------|---------------|-------|
| | | 24 hr | 48 hr |
| Control Moderately Hard | rep. A | 5 | 5 |
| | rep. B | 5 | 5 |
| | rep. C | 5 | 5 |
| | rep. D | 5 | 5 |
| Baseline 24-Apr-20 | rep. A | 1 | 1 |
| | rep. B | 2 | 2 |
| | rep. C | 3 | 0 |
| | rep. D | 3 | 0 |
| Autoclaved 30 min | rep. A | 5 | 5 |
| | rep. B | 5 | 5 |
| | rep. C | 5 | 5 |
| | rep. D | 5 | 5 |

245126 100X (Second Sample)



245127 100X (Third Sample)

