



## PARTICLE ANALYSIS REPORT

**University of Arkansas**  
Fayetteville

Sampling Source: Cooling Tower Basin Water

Electro Cell System: **XCell-4000 Particle Precipitator**



**99%  
particle  
reduction  
in 30 days**

**TEST METHOD:**

All tests completed by independent third-party laboratory. Samples analyzed by electro-optical particle analyzer employing the light scattering principle of operation with filtered water and particle data corrected. Stirring was continuous.

**BASELINE SAMPLE -**  
Prior to ElectroCell Start-up - 24-Oct-2022

**AFTER 30 DAYS**  
with ElectroCell System -

**PARTICLE COUNTS PER 100mL  
TEST PORTION**

**PARTICLE COUNTS PER 100mL  
TEST PORTION**

|                       |                |
|-----------------------|----------------|
| 1 - 3 micron:         | 157,414        |
| 3 - 5 micron:         | 69,580         |
| 5 - 10 micron:        | 96,822         |
| 10 - 15 micron:       | 41,916         |
| 15 - 25 micron:       | 54,986         |
| Over 25 micron:       | <u>127,370</u> |
| <b>TOTAL / 100mL:</b> | <b>548,088</b> |

|                       |               |
|-----------------------|---------------|
| 1 - 3 micron:         | 16,700        |
| 3 - 5 micron:         | 4,353         |
| 5 - 10 micron:        | 4,653         |
| 10 - 15 micron:       | 1,610         |
| 15 - 25 micron:       | 1,191         |
| Over 25 micron:       | <u>1,371</u>  |
| <b>TOTAL / 100mL:</b> | <b>29,878</b> |

**SOLIDS PER 100 LITERS  
OF SYSTEM VOLUME ( mm<sup>3</sup> )**

|                            |                  |
|----------------------------|------------------|
| 1 - 5 micron:              | 5.71             |
| 5 - 10 micron:             | 40.86            |
| Over 10 micron:            | <u>85,776.04</u> |
| <b>TOTAL / 100 Liters:</b> | <b>85,822.61</b> |

**858 ppm**

**SOLIDS PER 100 LITERS  
OF SYSTEM VOLUME ( mm<sup>3</sup> )**

|                            |               |
|----------------------------|---------------|
| 1 - 5 micron:              | 0.41          |
| 5 - 10 micron:             | 1.96          |
| Over 10 micron:            | <u>928.31</u> |
| <b>TOTAL / 100 Liters:</b> | <b>930.68</b> |

**9 ppm**

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