

**Potentially Toxicogenic (PTOX) Cyanobacteria Screen**

*Project: Client/Project Name*

Received: Date  
Prepared: Date  
Analyst: Analyst

<u>Sample ID</u>	<u>Site</u>	<u>Collected</u>
#1	A	1/1/11
#2	B	1/1/11

**Method**

One mL aliquots of non-preserved samples were prepared using Sedgewick Rafter cells. The samples were scanned at 100X for the presence of potentially toxicogenic (PTOX) cyanobacteria using a Nikon Eclipse TS100 inverted microscope equipped with phase contrast optics. Higher magnification was used as necessary for identification and micrographs.

**Results**

**#1 - A**

The sample was dominated by significant levels of potentially toxicogenic (PTOX) cyanobacteria. Observed cyanobacteria were *Aphanizomenon* sp., *Dolichospermum* sp., *Microcystis* spp., *Planktothrix* sp., and *Woronichinia naegeliana*.

Potential toxin producing genera observed include:

<u>Microcystins</u>	<u>Saxitoxins</u>	<u>Anatoxin-a</u>	<u>Cylindrospermopsin</u>
<i>Microcystis</i>	<i>Aphanizomenon</i>	<i>Aphanizomenon</i>	<i>Aphanizomenon</i>
<i>Woronichinia</i>	<i>Dolichospermum</i>	<i>Dolichospermum</i>	<i>Dolichospermum</i>
<i>Planktothrix</i>		<i>Planktothrix</i>	

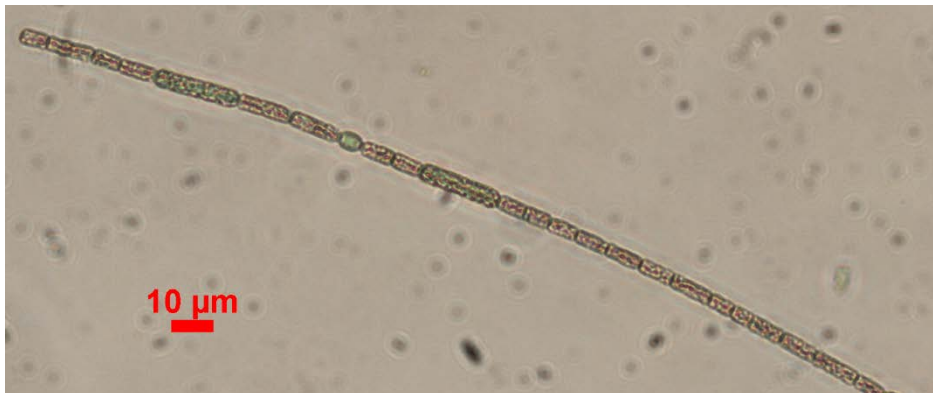
**#2 - B**

The sample was dominated by flagellate green algae (Chlorophyta). PTOX cyanobacteria were not observed.

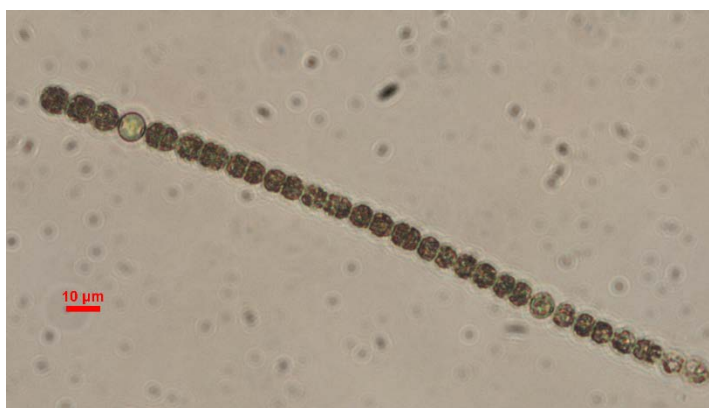
**Recommendations**

Based on the significant PTOX cyanobacteria presence in #1 – A, toxin analyses for microcystins, anatoxin-a, saxitoxin and cylindrospermopsin are recommended. Toxin analyses are not recommended for sample #2 – B due to an absence of PTOX cyanobacteria.

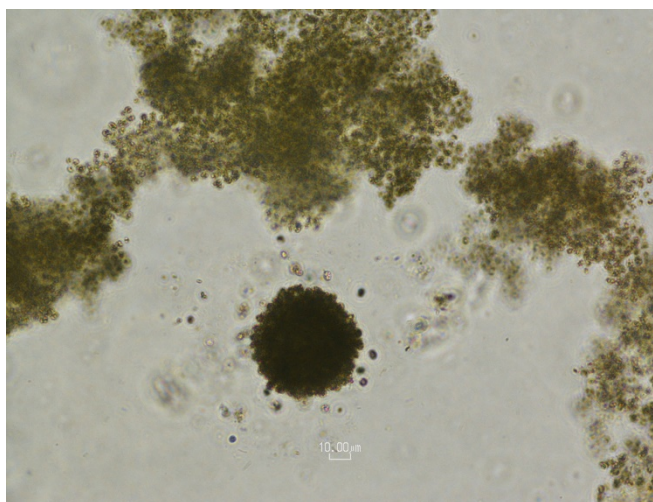
**Micrographs**



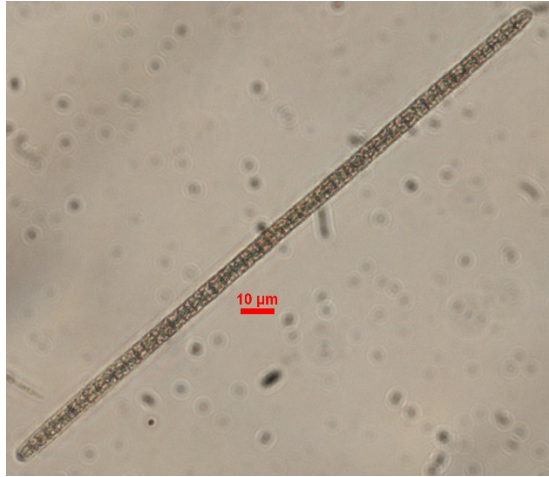
*Aphanizomenon* sp. at 400X (#1 - A)



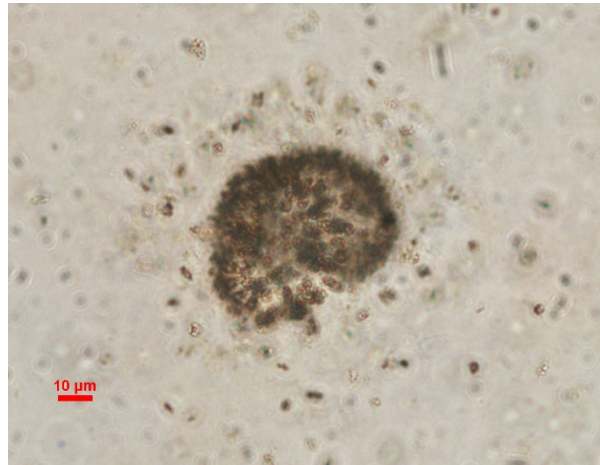
*Dolichospermum* sp. at 400X (#1 - A)



*Microcystis* spp. at 400X (#1 - A)



*Planktothrix* sp. at 400X (#1 - A)



*Woronichinia naegeliana* at 400X (#1 - A)

Submitted by:

Analyst

Date:

1/1/1

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