

Nodularin Report

Project: Central Davis Sewer District - Great Salt Lake

<u>Sample Identification</u>	<u>Sample Collection Date</u>
FB-1	4/6/17
FB-3	4/6/17

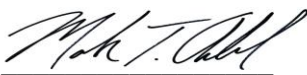
Toxins – Nodularin (NOD)

Sample Prep - The samples were ultra-sonicated to lyse cells and release intracellular toxins. Solid phase extraction (SPE) was utilized (Strata) for sample clean-up (desalting) and preconcentration (10x). A duplicate sample (FB-1) was spiked (lab fortified matrix, LFM) at 0.1 µg/L NOD, which provided quantitative capability and additional qualitative confirmation.

Analytical Methodology - Liquid chromatography-mass spectrometry/mass spectrometry (LC-MS/MS) was utilized for the determination of NOD. The $[M+H]^+$ ion for NOD (m/z 826.5) was fragmented and the major product ions (599.5, 674.5, 776.5 & 781.5) provided both specificity and sensitivity. The current methodology (LC-MS/MS) established a limit of detection (LOD) of 0.01 µg/L for NOD.

Summary of Results

<u>Sample</u>	<u>Total NOD</u> (µg/L)
FB-1	ND
FB-3	ND
<i>Detection Limits (µg/L)</i>	<i>0.01 µg/L</i>

Submitted by: 
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Date: 4/13/17