A.1 Technology Name

Diffusive Gradient in Thin Films (DGT)

A.1.1 Source

A.A. Menegário; L. N. M. Yabukie; K.S. Luko; P.N. Williams; and D.M. Blackburn. Use of diffusive gradient in thin films for *in situ* measurements: A review on the progress in chemical fractionation, speciation and bioavailability of metals in waters. Analytica Chimica Acta. 2017, 983 pp 54-66.

A.1.2 Summary

Media:	Water
Study Type:	Review
Technology:	DGT – Metals
Peer Reviewed:	Yes
Publication Date:	July 2017

A.1.3 Site Description

- Review of DGT use focused on metals and metalloids and applications in fractionation and speciation analysis.
- Review focuses in alternative binding agents and materials that have been used for speciating metals and metalloids including arsenic, chromium, mercury, uranium, and others and effects on fractions recovered (i.e. organic/inorganic, nanoparticle, colloids).

A.1.4 Remedial Phase

Not Applicable. This is a literature review of several peer-reviewed case studies and review papers that summarize current state-of-practice for DGT use for metals in water.

A.1.5 Outcome

Review documents examples for metal/metalloid fractionation, speciation analysis, and bioavailability in water and notes these as significant improvements to grab sampling techniques, particularly when information about bioavailability and toxicity of metals is required.