

Memorandum

To	Matthew Irvine, PSPC	Page 1
CC	Dele Morakinyo (INAC), Michael Bernardin (PSPC), Greg Wright (AECOM), Cody Sipkema (AECOM), Amber Zilinsky (AECOM).	
Subject	Potential Error in CAM-E Keith Bay Water Licence (WL#1BR-KEI722) Lead Criterion	
From	Cathy Corrigan	
Date	February 7, 2019	Project Number 60515379

In September 2018, during the last week of site operations for the CAM-E Keith Bay remediation project, it was identified that the issued Water Licence (WL#1BR-KEI722) listed a lead criterion for discharging water to land that was significantly lower than that typically specified for other similar site operations.

The contractor had completed barrel processing which had resulted in waste water derived from both rinsing out empty barrels but also from consolidating barrels with aqueous contents. The waste water underwent several rounds of treatment; however, upon receipt of treated water analytical results it was identified that lead exceeded the discharge criterion. It was at that point that it was noted that the lead criterion for the CAM-E Keith Bay licence was much lower and inconsistent with the licences issued for other similar projects. Prior to that instance, lead had not been a contaminant of concern for other water being discharged from project operations. Table 1 below provides a comparison of lead criteria listed in Water Licences from a number of other similar remediation projects, including CAM-C, Matheson Point, which is also current.

Table 1 - Summary of Lead Criteria from Water Licences for Similar Sites and Work Scopes

Site	CAM-E Keith Bay	CAM-C Matheson Point	Notting- ham Island	CAM-A Sturt Point	FOX-E Durban Island	PIN-E Cape Peel	PIN D Ross Point	FOX-C Ekalugad Fjord	CAM-D Simpson Lake
Water Licence #	1BR- KEI722	1BR- MTH1722	1BR- NIR1419	BR- STU1318	1BR- DPI1217	IBR- PEE1116	1BR- ROS1116	1BR- EKA0809	1BR- SIM0813
Date	Jan 17, 2017	Aug 15, 2017	Feb 17, 2014	Aug 08, 2013	Oct 18, 2012	Aug 04, 2011	Aug 29, 2011	Jun 13, 2008	Dec 02, 2008
Lead Criterion (in µg/L)	<u>1</u>	50	50	50	50	50	50	50	50
Analysis Type	Total	Total	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved

For additional comparison, Table 2 below lists the lead criteria for various water uses in other jurisdictions.

Table 2 - Summary of Lead Criteria for various Water Uses in Other Jurisdictions
(in µg/L, total analyses)

	CCME/ Federal	B.C.	Alberta	Manitoba	Ontario
Protection of Freshwater Aquatic Life (varies according to hardness)	1-7	3.31+	1-7	0.09-10.94	1-5
Surface Water - Irrigation	200	200	200		
Surface Water - Livestock Watering	100	100	100	100	
Drinking Water	10				

It should be noted that the use of “protection of freshwater aquatic life” criteria does not apply when the contaminant is located greater than 30 m from a surface water body. The following clause contained within the Water Licence is consistent with an intent of not requiring the discharged water to meet requirements for protection of surface water:

“The discharge location for all treated Effluents described in Part D, Items 8 and 11, shall be at a minimum of thirty-one (31) metres from the ordinary High Water Mark of any Water body and where direct flow into a Water body is not possible and no additional impacts are created.”

Based on the above information, it is suggested that the lead criterion listed in the Keith Bay Water Licence is incorrect. Furthermore, the requirement for a contractor to treat to that level is not reasonable for a short-term water treatment facility. We are therefore requesting that the Nunavut Water Board re-examine the lead value in the Licence and issue an amendment to change the criterion to 50 µg/L, consistent with other sites. This would allow the contractor to discharge the currently containerized water in the spring.

I can be contacted at (780) 660-9543 should you require additional information.

Sincerely,
AECOM Canada Ltd.



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