

**Rio Algom Mining LLC**

August 28, 2018

ADDRESSEE ONLY

Document Control Desk

Director

Office of Nuclear Material Safety and Safeguards

U.S. Nuclear Regulatory Commission

Washington, DC

20555-0001

**RE: License SUA-1473, Docket No. 40-8905  
Semiannual Effluent Report – 1<sup>st</sup> Half 2018**

Dear Director:

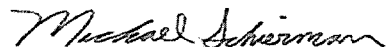
In accordance with license condition #19 of source material license SUA-1473 and the Rio Algom Mining LLC (RAML) *Health Physics and Environmental Programs Manual*, RAML is providing the first half of 2018 Semiannual Report for the Ambrosia Lake facility.

In a letter dated December 14, 2017 (ML16344A027), the Nuclear Regulatory Commission (NRC) agreed in part with a RAML proposal to terminate certain routine environmental monitoring tasks since the site has been mostly reclaimed. As a result, routine monitoring for environmental external dose, sediment, vegetation, and surface soil has been discontinued and data for these media will no longer be reported. Likewise, in a letter dated December 20, 2017 (ML17293A342), the NRC agreed with RAML's proposal to terminate environmental monitoring for radioactive particulates. RAML terminated this monitoring on December 31, 2017.

Table 1 provides first-half 2018 environmental monitoring results for radon-222 in ambient air. Monitoring locations for the facility are depicted in Figure 1.

If you have any questions or need additional information, please do not hesitate to call me at (505) 298-4224.

Respectfully,



**Michael Schierman**  
Radiation Safety Officer  
Environmental Restoration Group Inc.

cc: Mr. James Webb (USNRC), NRC Region IV Division of Nuclear Materials Safety

IE48  
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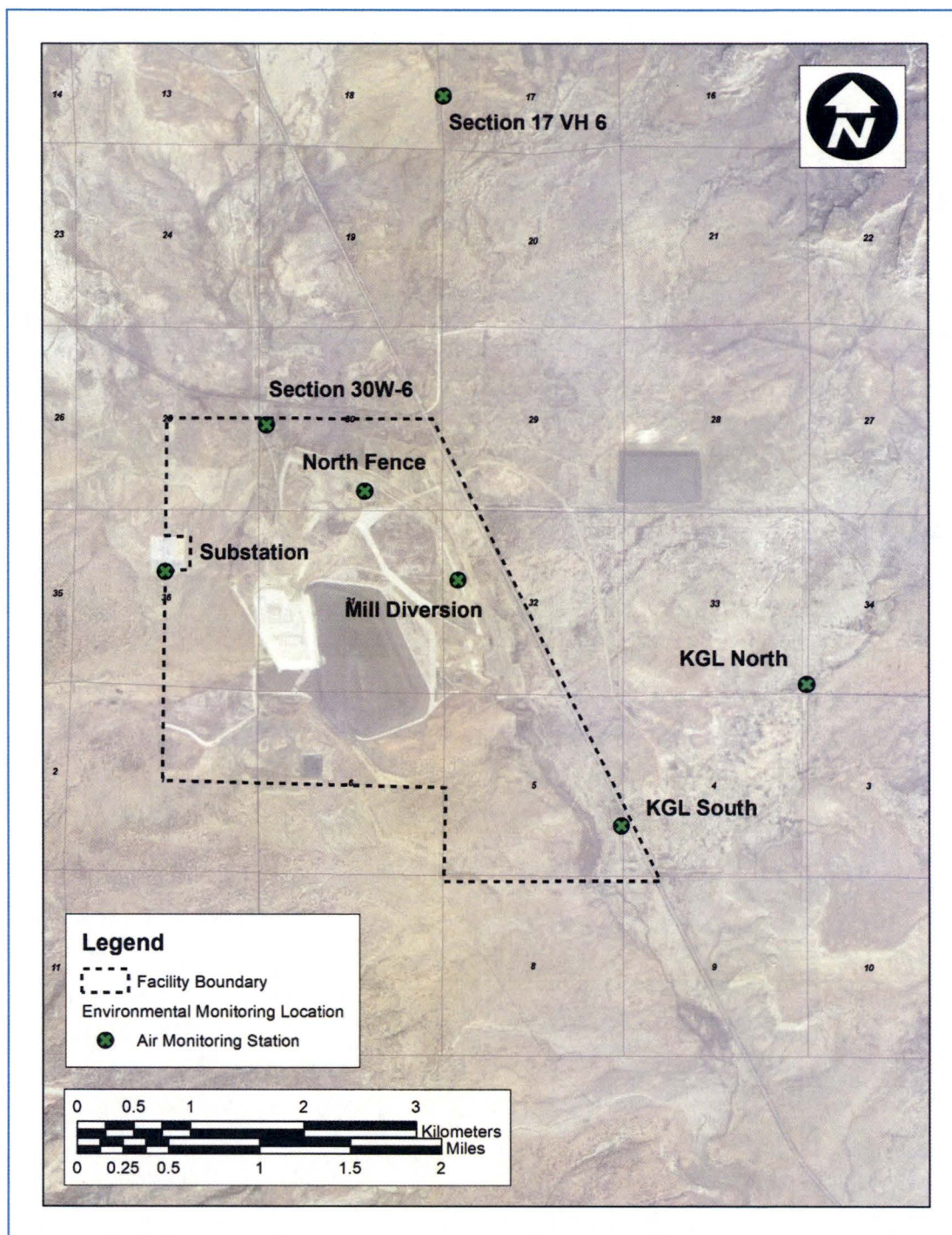


Figure 1. Environmental Monitoring Locations at the Ambrosia Lake Facility.

Environmental Radon 2018					
1st Quarter Sample Media: Ambient Air			2nd Quarter Sample Media: Ambient Air		
Location:	Conc. pCi/L	Error pCi/L	Location:	Conc. pCi/L	Error pCi/L
Substation	0.46	0.17	Substation	0.65	0.14
Mill Diversion	2.10	0.33	Mill Diversion	1.20	0.19
Section 30W VH6	3.40	0.46	Section 30W VH6	2.00	0.28
Section 30W VH6-Duplicate	3.20	0.46	Section 30W VH6-Duplicate	2.00	0.28
North Fence	2.60	0.38	North Fence	1.50	0.22
North Fence-Duplicate	2.50	0.38	North Fence -Duplicate	1.60	0.22
Section 17 VH4	0.35	0.14	Section 17 VH4	0.32	0.11
KGL - North	2.00	0.30	KGL - North	0.97	0.17
KGL - North- Duplicate	1.80	0.30	KGL - North- Duplicate	1.10	0.19
KGL - South	1.70	0.28	KGL - South	0.95	0.17
Notes: Error is the measurement uncertainty at a 95% confidence level. All measurements were collected using a closed high-sensitivity alpha-track detector.					

Table 1. Results of first half 2018 monitoring for radon-222 in ambient air.