

Towards Sustainable Mining FY2018 Self-Assessment

Avalon annually reports on the Mining Association of Canada (MAC)'s *Towards Sustainable Mining* (TSM) protocols. The guidance that is provided assists all mining companies in measuring and improving their performance in seven key areas of operational performance. The following is a self-assessment of Avalon's FY2018 performance in reaching its TSM's performance indicators, as well as FY2019 targets and action plans.

Avalon reports on five of the seven performance protocols, excluding Tailings Management and Preventing Child and Forced Labour. As a non-operating company, Avalon has been welcomed by MAC to provide non-verified self-assessments.

TSM Performance Indicator	FY2019 Target	FY2019 Action Plan	FY2018 Actual	FY2018 Target	FY2018 Action Taken	FY2017 Actual	FY2016 Actual
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Aboriginal and Community Outreach (2017 version)

Community of Interest (COI) Identification	AA	Identify COI at new drilling sites (pending budget and project decisions); actively seek confirmation and engagement with the identified COI.	AA	AA	Avalon updated its procedure for COI identification and initiated communications with the Eabametoong First Nation (EFN) at the Lilypad Cesium Project.	AA	AA
Effective COI Engagement and Dialogue	AA	Engage with the Wabaseemoong Independent Nations (WIN) and Métis Nation of Ontario (MNO) and communicate with the Ochiichagwe' Babigo' Ining Ojibway Nation (OBION) and Grassy Narrows First Nation (GNFN) at the Separation Rapids Project; engage with Acadia First Nation (AFN) at the East Kemptville Project; and with the EFN at the Lilypad Cesium Project (pending budget and project decisions); initiate discussions at new projects if appropriate	AA	AA	Avalon engaged with the WIN and MNO, and held discussions with the OBION and GNFN at the Separation Rapids Project. Significant engagement with the AFN continued, including initiation of an MOU regarding the East Kemptville Project. Avalon engaged with the Lutsel K'e Dene First Nation, Yellowknives Dene First Nation, Deninu K'ue First Nation, North Slave Métis Alliance, Fort Resolution Métis Council, Tlicho Government and K'at'odeeche First Nation, government and community organizations with respect to the renewal of the Nechalacho Project exploration permit. Discussions were initiated with the EFN regarding the Lilypad Cesium Project.	AA	AA

TSM								
Performance Indicator	FY2019 Target	FY2019 Action Plan	FY2018 Actual	FY2018 Target	FY2018 Action Taken	FY2017 Actual	FY2016 Actual	
COI Response Mechanism	AAA	Continue to develop formal engagement processes for COIs at approved projects; finalize an MOU with the Acadia First Nation, (subject to availability of funding); finalize Accommodation Agreements with identified COIs at projects that advance to construction; dialogue with Indigenous groups that have formal agreements at the Nechalacho Project regarding potential project modifications	AAA	AAA	Avalon has a formal engagement process developed for COIs associated with the Nechalacho Project. It has an MOU established with the WIN at the Separation Rapids Project. An MOU is under development with the AFN.	AAA	A	
Reporting	AA	Complete 2019 Sustainability Report	AA	AA	Avalon completed its FY2018 Sustainability Report.	AA	AA	

Energy and GHG Emissions Management

Energy use and greenhouse gas emissions management systems	A	Continue to investigate options for reducing energy and GHG footprint at all active projects, pending financing	A	A	Avalon investigated both natural gas and hydro power line installation for the Separation Rapids Project. A Corridor Study was initiated in conjunction with the NWT government regarding the potential installation of a power and road corridor that would have significant benefits for reducing GHG emissions at the Nechalacho Project.	A	B	
Energy use and greenhouse gas emissions reporting systems	A	Expand energy reporting to additional projects (pending financing); continue to support the Prospectors and Developers Association of Canada (PDAC) in energy initiatives; participate in the MAC Climate Change working group and comment on legislation as appropriate	A	A	Energy reporting continued at active projects. Avalon was the sole exploration company providing data and systems for the development of the PDAC energy reporting system and information protocols and provided information for PDAC meetings with regulators. Avalon continued to participate in the MAC Climate Change working group and participated in submissions related to NWT government energy initiatives.	A	B	

TSM Performance Indicator	FY2019 Target	FY2019 Action Plan	FY2018 Actual	FY2018 Target	FY2018 Action Taken	FY2017 Actual	FY2016 Actual
Energy and greenhouse gas emissions performance targets	A	Continue to assess impact and cost of regulation on GHG and energy reporting; utilize efficiency targets when in production	A	A	Avalon continued to assess the impacts of GHG regulation in its project designs and commented on regulatory initiatives through MAC and PDAC, as well as directly to regulators. Re-opening of the East Kemptville Project waste management plan and other initiatives will make the project a low GHG producer when in production. Avalon has completed significant energy analysis historically to reduce energy use in exploration and applies or has applied them, including: optimization of transport GHG (flights), recycling of water, use of solar panels and installation of energy efficient tent heaters.	B	C

Biodiversity Conservation Management

Corporate biodiversity conservation commitment, accountability and communications	A	Continue to advance environmental baseline studies for financed projects; develop biodiversity management plans for species of importance as required	A	A	Avalon completed a Species at Risk Act (SARA) study at the East Kemptville site, which will form the basis of a biodiversity management plan. Additional biological baseline data was collected at the Separation Rapids site for incorporation in project planning, permitting and design.	A	A
Facility-level biodiversity conservation planning and implementation	A	Continue to advance biodiversity management plans for financed projects in consultation with regulators, Indigenous peoples and other COI	A	A	Biodiversity policies have been prepared for use at operating sites, and SARA studies were completed or expanded at two sites. Avalon also held numerous meetings with COI.	A	A
Biodiversity conservation reporting	A	Communicate results of completed SARA studies to COI for advancing projects with funding; engage on biodiversity management plans that are developed	A	AA	While the 2018 reporting targets were met, there was no independent assessment of biodiversity reporting as required for an AA ranking.	AA	AA

Safety & Health

Commitments and accountability	A	Continue to review and assign operational health, safety and environment responsibilities at active project sites	A	A	All exploration programs and offices had personnel responsible for health, safety and environment activities.	A	A
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TSM Performance Indicator	FY2019 Target	FY2019 Action Plan	FY2018 Actual	FY2018 Target	FY2018 Action Taken	FY2017 Actual	FY2016 Actual
Planning and implementation	A	Conduct risk assessments and prepare safety management plans for new projects and update old assessments as appropriate	A	A	Avalon completed risk assessments and emergency response plans for the Separation Rapids, East Kemptville and Nechalacho project field programs.	A	A
Training, behaviour and culture	AA	Train all personnel as appropriate for site work	AA	AA	All exploration and environment site personnel had site-specific health, safety and environment training completed. Avalon requires daily risk assessments at active sites.	AA	AA
Monitoring and reporting	A	Continue to report leading and lagging indicators at material projects	A	A	All drill companies were required to report leading indicators. Avalon consolidated and reported on lagging indicators.	A	A
Performance	AA	Target 0 recordable injuries	AA	AA	All accident targets were 0.0 for the fiscal year.	AA	AA

Crisis Management and Communications Planning

Crisis management and communications preparedness	Comp.	Review and amend emergency response plans as required for potential new project areas; update existing emergency response plans as necessary	Comp.	Comp.	Avalon updated its emergency response plans for the Separation Rapids, East Kemptville and Nechalacho project field programs.	Comp.	Comp.
Review	Comp.	Create, review and update emergency response plans at all active and new sites	Comp.	Comp.	Avalon updated its emergency response plans at all active project sites in FY2018.	Comp.	Comp.
Training	Comp.	Complete a desktop crisis simulation, pending financing	N/A	Comp.	Avalon did not complete a desktop crisis simulation due to budget constraints and no significant field programs to warrant a crisis simulation in FY2018.	Comp.	Comp.