

Version 3 Hammond Reef Gold Project EIS/EA – Addendum (Part B)
Responses to Provincial Information Requests

1656263

Identifier	Topic	Reference to EIS/EA Report	Summary of Previous Comment	Summary of Proponent's Response to Previous Comment	Follow-up comment/ Request for Information	New Proponent Response	Subsequent Comment
			Date: August 2015 EMRB-2B	Date: November 2015	Date: January 2016	Date: August 2016	
EMRB-2C	Air Quality		The approach to calculate control factors for mitigation measures through watering and/or natural mitigation is reasonable for predicting annual average concentrations. Short term (i.e. 24-hour) maximum dust concentrations typically occur on days without rain. As such, it is not reasonable to consider/include natural mitigation when predicting short term 24-hour concentrations.	CMC acknowledges EMRB's concern that applying a control factor that accounts for natural mitigation of dust from roadways due to precipitation days in a year may not be conservative to apply to shorter averaging times such as 24-hr or shorter. However, CMC's technical consultant (Golder Associates Ltd.) considers that the 80% control factor applied to fugitive dust emission estimates from roadways remains appropriate and justifiably conservative to use in this assessment at this time. As indicated in the Atmospheric Environment Technical Support Document, the proponent has committed to preparing and implementing a Fugitive Dust Best Management Practices Plan (BMPP). Based on industry experience, the MOECC Environmental Approvals Branch has previously accepted Emission Summary and Dispersion Modelling Results with reductions as high as 90% of 24 hour SPM emissions due to the implementation of an effective BMPP. Control measures such as road watering will be preferentially applied on days without rain to control dust emissions. Furthermore, as a part of this BMPP, the fugitive dust on actual facility roadways will be characterized to obtain site-specific information regarding actual silt loadings on roadways, size fractions of dust and metals contents, at which point a more robust assessment of road dust emissions from the Facility can be completed using site-specific data and which takes into the actual effects of the BMPP.	The response is not sufficient. The modelled emission rates and resulting concentrations include a reduction factor of 80% PLUS the effects of natural mitigation (i.e. rainfall). As a result, the actual amount of mitigation considered in the assessment is greater than 80%. The 80% reduction applied by CMCs technical consultant would be realized through the application of the noted BMPP. Given that the maximum predicted concentrations are well in excess of the AAQCs beyond the regional study area even with the consideration of mitigation measures in a BMPP, it is questionable whether additional/further reductions can actually be realized through the development of a BMPP. As such, further clarification is requested on the mitigation measures that will be used to reduce the concentrations, as well as the anticipated reductions from each measure to assess whether they can adequately address the issue. Also, since CMC is relying on the implementation of the BMPP to achieve significant additional reductions, the following are recommended to be included in the BMPP: <ul style="list-style-type: none"> ○ Measurement of actual silt loadings on each site roadway <ul style="list-style-type: none"> ○ Inclusion of metal contents in the road dust/silt ○ Verification/validation of the BMPP through monitoring, and if necessary a combined monitoring and modelling assessment to identify/target the specific sources requiring additional mitigation if necessary ○ A condition requiring potential cessation of operations during windy periods (in excess of a specified wind speed threshold) 	The control factors used for the roadways have been updated to remove any reduction due to natural mitigation. The results of the revised dispersion modelling assessment, including the assumptions related to mitigation measures are provided in the attached memorandum. A Best Management Practices Plan (BMPP) has been prepared for the site and is provided as an attachment. The BMPP describes the mitigation measures that will be implemented during constructions and operations. Section 4.1.2 of the BMPP details the measurement of silt loadings and ambient monitoring that will take place at the site. Attachment: Technical Memorandum: Revised Emission Rate Assumptions and Dispersion Modelling Results – Hammond Reef Gold Project Attachment: Best Management Practices Plan for the Control of Fugitive Dust – Hammond Reef Gold Project. Version 1.0	N/A