

**Supplemental Questions for CVRI – Robb Trend
Water/Terrestrial/Air/Health**

Please review the *Guide to Reviewing Environmental Impact Assessments Reports* (<http://www.environment.alberta.ca/01495.html>) prior to completing this table.

Question	Reviewer	TOR # (if applicable)	Is Additional Fieldwork Required?	SIR Category Please refer to Appendix 5 of the <i>Guide to Reviewing Environmental Impact Assessment</i> for categories (e.g. vegetation, terrain and soils, hydrogeology, EPEA approval, etc.)
<p>1. SIR 189. Volume 1, Section A.8.3, Page A-26.</p> <p>In response to SIR # 189, CVRI stated that <i>[t]he current ESRD approval for the operation of the CVM specifies that surface water bodies will be monitored by grab sample once per year for “inorganic parameters” listed in “Canadian Water Quality Guidelines for the Protection of Aquatic Life 1999 (as amended). These parameters are listed in CR #3 Tables 3.4-2 and 3.4-3. This would therefore be the “acceptable quality (level)”</i>. However, not all of the inorganic parameters listed in CR #3 Tables 3.4-2 and 3.4-3 have levels listed in the <i>Canadian Water Quality Guidelines for the Protection of Aquatic Life 1999</i>.</p> <p>a) For those inorganic parameters listed in CR #3 Tables 3.4-2 and 3.4-3 which do not have acceptable levels as defined in the <i>Canadian Water Quality Guidelines for the Protection of Aquatic Life 1999</i>, indicate how “acceptable quality” will be defined.</p>	EC		No	Water Quality - Groundwater
<p>2. SIR 191. Volume 1, Section C.3.2, Page C-37.</p> <p>In response to SIR # 191, CVRI stated that <i>[t]he ‘competent rock’ will be taken from the proposed mine pits and hauled to provide ‘common fill’ for the haul road construction. Solid, unweathered rock is preferred for construction. Therefore, it is the same ‘overburden rock’ that has been tested for the mine. Overburden characteristics have been described in CR#10, Section 4.0.</i></p> <p>While the reference section does state that <i>A total of 128 overburden samples (mostly bedrock) from fourteen test holes (Figure 8) were collected by CVM and analysed for texture, carbonate content, detailed salinity and metals</i>, it does not include any information on testing for the</p>	EC		No	Terrestrial – Ground and Soil

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<p>potential for acid generation.</p> <p>a) Clarify how the testing discussed in CR#10 will determine the suitability of overburden for the construction of haul roads, with respect to the potential for acid generation and metal leaching.</p>				
<p>3. SIR 210. Volume 2, CR 3, Section 6.0, Page 41.</p> <p>In their response to SIR 210, CVRI states that <i>climate change is indifferent to ecosystem makeup</i> and that <i>the minor spatial differences between Edmonton and Edson (CVM) are insignificant to climate change over the long term.</i></p> <p>a) Provide a justification and rationale for the applicability of the predictions generated by using the Edmonton data (e.g. explain how model results are representative of the Edson (CVM) area when existing differences between Edmonton and Edson make Edmonton a poor surrogate for Edson). Response should reference model prediction uncertainty..</p>	NRCan		No	Climate Change
<p>4. SIR 211. Volume 2, Appendix 9, Section 4.2.1, Page 35.</p> <p>In their response to SIR 211, CVRI states that with regards to ‘re-worked till’, <i>[s]econdary deposits are those having undergone ‘reworking’ through actions such as fluvial transport or erosion.</i></p> <p>a) Explain why re-worked till is not classed as fluvial sediment.</p> <p>b) Provide a description of the sedimentological and physical characteristics of the “reworked till” unit, and explain why it classifies as a ‘till’, whether it is a diamicton and whether it contains erratic clasts.</p>	NRCan		No	Geological and Geotechnical

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<p>5. SIR 213. Volume 2, CR1- Air Quality Assessment, Section 2.1.1, Page 3.</p> <p>CVRI states that at some locations, for some compounds, air emission values are higher for Project Case 2 than for Project Case 1, even though Project Case 1 was used in the assessment as the worst-case air quality scenario.</p> <p>a) Revise the assessment using Project Case 2 air emission values when they are higher than Project Case 1.</p>	HC		No	Health
<p>6. SIR 215. CR1- Air Quality Assessment, Section 4.1.2, Page 26.</p> <p>According to the National Pollutant Release Inventory, the benzo(e)pyrene, dibenz(a,h)acridine, phosphorus, and sulphuric acid are emitted by this industrial sector/facility and are not emitted from project fugitive sources or from diesel combustion.</p> <p>a) Identify and describe the other project sources that emit benzo(e)pyrene, dibenz(a,h)acridine, phosphorus, and sulphuric acid.</p>	HC		No	Health
<p>7. SIR 216a Volume 2, CR 1, Air Quality Assessment, Section 4.1.2, Page 26.</p> <p>CVRI states that water trucks will be deployed on a continuous basis during peak traffic periods and warm weather conditions.</p> <p>a) Provide specific details on the watering schedule including a discussion of:</p> <ol style="list-style-type: none"> i. the application rate of water, ii. the time between applications, iii. traffic volume during the period and iv. the meteorological conditions during the period. <p>b) US EPA 1998b suggests that surface improvements and source extent reductions (if possible) can reduce the PM10, PM2.5 and TSP levels. Will CVRI be considering these</p>	HC		No	Health

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mitigative measures?				
<p>8. IR 217 Volume 2, CR 1, Air Quality Assessment, Section 5, Pages 47-55.</p> <p>CVRI states that they will <i>investigate the potential for low-emission practices...</i></p> <p>a) Provide more detail on when these practices will be investigated including what will trigger an investigation and; under what circumstances "low emission practices" will be put into place.</p> <p>b) Clarify whether Tier 4 technology will be used when it becomes available.</p> <p>c) Clarify whether CVRI will be implementing an air quality monitoring program to determine when additional operational controls should be applied to reduce air quality emissions.</p>	HC		No	Health
<p>9. SIR 224. Volume 3, CR 5 – Human Health, Section 3.2.1.2, pg. 10-13 and Table 3-2.</p> <p>Of the 18 discrete receptor locations (denoted as R1 to R18), 4 locations are not considered in the HHRA (R10, 11, 12, and 13).</p> <p>a) Clarify why all four of these locations are not considered in Table 3-2, with specific attention to R11 (in Local Study Area) and R12 (identified as a campground).</p>	HC		No	Heath