Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
1. INTRODUCTION			
1.0 Purpose of the Guidelines	• The EAR should also demonstrate that the proponent has assessed the significance of the effects likely to be caused by the project, has identified measures to mitigate adverse effects, is committed to implement that mitigation and has identified a program to monitor effects and to refine mitigation over the life of the project.	• 7 – Project effects sections • 7 – Mitigation measures sections • 7 – Monitoring and follow-up sections	
1.1 Traditional Knowledge	• Yukon Zinc Corporation must make all reasonable efforts to collect and facilitate the collection of traditional knowledge for integration into the EAR in collaboration with First Nations communities and organizations. • The proponent is therefore required to consider traditional knowledge in various stages of the project assessment, including: scoping of Valued Ecosystem and Cultural Components (VECCs); the description of existing environmental conditions; predictions of environmental effects; development of mitigation measures; evaluation of significance; and monitoring and follow-up as required. • When conducting a research study, First Nation communities must be asked to be actively involved and the use of traditional knowledge must be approved through consultation with the First Nation to determine the appropriateness of its use, particularly the degree to which the details of the traditional knowledge may be published. • Where traditional knowledge is not available to the proponent despite appropriate diligence, the proponent should describe efforts taken to obtain it.	• 7.12,5 • 7 – Scope of assessment sections • 7.12, 7.13 • N/A	• Traditional knowledge study in progress by RRDC and will be submitted in December
1.2.2 Format and Presentation	• The proponent should identify in a list of references all sources of information used in the preparation of the EAR. • Supporting documentation prepared by the proponent and their consultants in support of the EAR should be provided in separate volumes or appendices and should be referred to in the main EAR text. Supporting documentation referenced but not provided must be readily available to reviewers. • A glossary defining words and acronyms should be included. • A suitable quantity of electronic (CD Rom) and text EAR documents must be provided; this should be discussed with the Yukon Government DAP Branch prior to EAR submission.	• 11 • 1.5 • Front matter • 1.6	
1.3.1 General	• The above requires that the screening, and by extension the EAR, must consider all phases of the project life from mine construction, operation through decommissioning, post closure and abandonment. • A temporal scope for the various phases of the mine development, and activities to be considered in the cumulative effects assessment, must be explicitly identified in the EAR, with an explanation of the rationale for temporal scope selection. • All physical works and activities pertaining to the mine development, including access corridors must be considered in the EAR. • The proponent must also clearly identify the spatial scope of their environmental assessment for all VECCs considered, including the relevant spatial scope identified in the cumulative effects assessment; the proponent must explain the rationale for its selection of spatial boundaries. • The scope of the project includes: – access;	• 2.1, 6, 7 – Project effects sections • 3.1 – Project schedule, 6, 7 – Scope of assessment sections • 6, 7 – Scope of assessment sections, • 7 – Scope of assessment sections • 2.1	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	– underground mining, including all associated geochemical issues; – waste rock handling and storage (permanent and temporary); – mill; – tailings management; – fuel handling and storage; – power generation and transmission facilities; – explosives manufacturing and storage facilities and associated infrastructure; – borrow pits; – water sources, use and release, water control structures and treatment facilities; – landfill; – deposition of gaseous, solid and liquid wastes; – ore storage areas, stockpiles and transfer pads; – site facilities and infrastructure including camp and maintenance facilities, fuel and hazardous waste storage areas, solid waste and liquid domestic waste management facilities; – VECCs potentially affected by the project; – site transportation routes including airstrip, access road, ore haul road, and all other roads and trails; and – off-site transportation routes including concentrate haul route (spills, safety and infrastructure requirements).		
1.3.2 Factors to be considered	• The RAs require the consideration of social and economic effects of this project in the EAR, as well as a consideration of alternatives to the project and alternative means of carrying out the project. • It is the RAs discretion to require a follow-up program for this project.		
• 2. ENVIRONMENTAL ASSESSMENT REPORT GUIDELINES			
2.0 Executive Summary	• Provide a concise non-technical description of key aspects of the proponent, project, and environmental setting. • Outline key environmental, social and economic effects and proposed mitigation strategies and measures. • Submit a summary of project information submitted and consultation efforts with stakeholders and First Nations. • Describe any uncertainties and public concerns.	• Executive Summary • Executive Summary • Executive Summary • Executive Summary	
2.1.1 Project Overview	• Provide a brief introduction to the project, the location and the proponent(s). • Briefly describe the project components, associated activities, scheduling details and a summary of capital costs. • Describe any important context for the assessment. • Build upon the existing Project Description as necessary.	• 1.1, 1.2 • 1.2 • 1.2 • Changes noted in 2.2	
2.1.2 Project Purpose and Need	• Describe the specific project objectives. • Indicate the rationale for the project (e.g. market demand, quality, quantity, and location of the mineral deposit).	• 1.2 • 2.1	
2.1.3 Timing Considerations	• Describe how timing considerations affect the impact assessment and plans for development of the project.	• 2.1	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
2.1.4 Project Proponent	• Indicate any project rights, interests and corporate relations between subsidiary companies and discuss implications for ownership of assets and liabilities at Wolverine site. • Briefly summarize experience working with First Nations • The proponent should provide information on items such as ISO certifications, corporate and project-level management/decision making approach, record of environmental compliance, relevant corporate policies and experience with similar projects. • Discuss how corporate policy, particularly in relation to environmental management, is communicated to working level staff.	• 1.2 • 1.2, 7.12 • 1.1, 1.2 • 9	
2.1.5 EA and Regulatory Regime	• Identify relevant information relating to licences and authorizations currently in place on the site, including those pertaining to the advanced exploration program. • Identify all authorizations needed to develop the project components that may be EAA and CEAA triggers and any relevant meetings held with territorial and federal authorities. • Identify the applicability of legislation that may not trigger EAA or CEAA, i.e. the *Migratory Birds Convention Act* and regulations, the Metal Mine Effluent Regulations pursuant to the *Fisheries Act*, (Yukon) *Environment Act* and regulations, *Highways Act*, international legislation, etc. • Identify whether or not this project will meet thresholds for the requirement to report gaseous emissions (For guidance on the National Pollutant Release Inventory: http://www.ec.gc.ca/pdb/npri/npri_home_e.cfm. For guidance concerning green house gas emission reporting requirements: http://www.ghgreporting.gc.ca). • Identify any unique plans, policies, special designations or other arrangements that affect land use in the project area, and the implications for conducting the EAR.	• 1.2 • 1.3 • 1.3 • 7.2 • N/A	
2.2.1.1 Project Background	• Describe the project history, current and projected status including updates on exploration programs.	• 1.2	
2.2.1.2 Project Location	• Provide location description for the purposes of the EAR. Present the size, general site layout and legal land descriptions. Indicate (where possible) land tenure. Provide appropriate maps and geographical coordinates. • Provide description and current map of mineral claims or lease boundaries. • Summarize project area in relation to drainage basins with associated water bodies and current eco-region classifications (refer to Smith, C.A.S., Meikle, J.C. and Roots, C.F. (editors), 2004. **Ecoregions of the Yukon Territory: Biophysical properties of Yukon Landscapes**. Agriculture and Agri-Food Canada, PARC Technical Bulletin No. 04-01, Summerland British Columbia, 313p.). • Describe the regional geology in relation to the project. Use 1:250 000 or larger scale map. • Present project area topographic maps at appropriate scale (1:30,000 or 1:50,000).	• 1.2, 2.1 • 1.2 • 4 • 2.3 • 1.2	
2.2.1.3 Overall Project Facilities	• Provide details on project facilities and infrastructure, including haul roads, disposal sites, borrow sources, waste handling facilities, water treatment, storage, power generation, camp, etc. • Provide applicable design criteria for mine components, including studies to establish such parameters. • Provide details on criteria that will determine the final choice for access road location.	• 2.10 • 2.5, 2.7, 2.8,2.9, 2.10 • 2.2	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
2.2.2 Project Geology	• Describe the regional geology in relation to the project. Use 1:250,000 or larger scale map. • Describe and map the property geology (1:10 000 scale). Indicate drill hole locations and type (such as DDH or RC). Focus on the maps that explain the location of samples used and maps that show the context of such samples, maps that show all holes at the deposit at the time of writing but not every exploration hole at the time of writing and not every drill log of every hole at the deposit (relevant exploration developments could influence cumulative effects). • In preparation of the Environmental Assessment Report, the proponent should include up to date information on the regional geology with the recent work by the Yukon Geology Program and Geological Survey of Canada mapping and research programs in the area. • Describe the major rock types present, indicating petrology, mineralogy and structure. • Present and describe all geochemical results of all lithologies in the project area. Data and results from acid-base accounting, kinetic testing, slaking, freeze thaw, and metal leaching tests should be presented and discussed. The acid-neutralizing capability of the different rock types should also be provided. • Provide information on rock quantities and cross sections to demonstrate the relevance of the current static database to the mine plan. • Discuss the correlation of the geochemical characteristics to rock type and location to indicate whether any section of the mine is more susceptible to leaching and acid generation. • Characterization of carbonate and sulphate mineralogy and potentially critical parameters such as selenium and mercury. • Discuss plans for the design and implementation of a focussed kinetic test program to evaluate the effects of leaching of mine walls and backfill both during operation and following flooding of the workings. This program would need to be designed in the context of the flooding scenario. • Discuss plans for geochemical characterization of tailings for the purposes of chemistry predictions of tailings impoundment seepage and tailings water cover; tailings characterization is expected to include static testing, mineralogy (including carbonate form and mineralogical form of critical potential contaminants) and kinetic testing to investigate the proposed disposal approach. • Conduct tests to characterize the geochemistry of borrow material stocks and other surficial materials to be either used in or affected by the project development, and potentially remobilized and exposed to oxidation. • Provide information on selenium levels and other metal/metalloids of environmental significance in ore and waste rock. • Outline future reserves or property exploration potential (relevant to cumulative effects).	• 2.3 • 2.3 • 2.3 • 2.3, 2.4 • 2.4 • 2.5 • 2.5 • 2.4 • 2.4 • 2.8 • 2.8 • 2.4, 2.8 • 6, 7-cumulative effects sections	
2.2.3 Description of the Project Components	• The level of engineering acceptable in the EAR is generally that of a bankable feasibility study. • All drawings must be sealed by a professional engineer but may be marked as not for construction. • The proponent shall provide a detailed description of the mine site components listed in Section 2.2.3.1 below. • Selection criteria, discussion of alternatives and rationale for final selections of all components and related facilities should be discussed in subsection 2.3.1 Alternative Means. • This section should present information of the key technologies and processes associated with the	• 2 • 2 • 2.10 • 2.2	One copy stamped (public registry)

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	proposed project.	• 2.2, 2.5, 2.7,2.8, 2.9, 2.10	
2.2.3.1 Mine Plan	• Describe the mine development plans, including schedules, phasing of underground development, and rate of ore extraction. • Discuss equipment types handling practices. • Provide information on the underground mine development with relevance to the geology, ore body, geotechnical and geomechanical properties of the proposed underground workings as it relates to an understanding of ARD mitigation. Describe the proposed mining methods, sequencing, size of openings and underground support requirements. Areas that are planned to be backfilled should be clearly shown. • Storage areas for stockpiled ores should be delineated on a map. • Describe mining operations (e.g. design of underground mine, blasting and drilling activities, ore handling, mine dewatering, management of waste rock) and any important characteristics of the ore reserves (e.g., metal grades and representative minor element composition of the deposit and ore/waste rock ratios.). • Outline how groundwater in underground workings will be managed/treated during mine development, operation and post operations. • Provide information on the proposed sites for backfill material storage including soil conditions, water and sediment management. • Describe sources, type and rate of proposed explosives use, residues expected, management of residues including when blasting occurs under wet hole conditions. • Describe the proposed ore stockpile storage, including design, management, duration of storage and temporary closure plans.	• 2.5, 3 • 2.5 • 2.5 • 2.7, 2.10 • 2.5 • 2.5, 2.9 • N/A – 2.2 • 2.5, 2.9 • 2.5, 2.7	
2.2.3.2 Ore Processing	• The process of extracting metals or minerals from the ore should be described, including production processes, capacity and products produced. • A description of the ore process facilities (milling) should be provided, including metallurgical testing, chemical inputs, products and wastes. • Facilities and equipment should be identified and a description of the beneficiation and extraction process provided. • A process diagram(s) or flowsheet should be included for any related processes. • Measures or technologies to control waste emissions or effluents should be described and flow sheets presented. A summary of metallurgical testwork and detailed waste characterizations should be included and discussed. • Describe milling operations including unit processes, reagent use and handling, effluent treatment, concentrate handling, tailings management and dust suppression. • Particular emphasis in the EAR should be placed on water recycle and reclaim opportunities, as well as every conservation measure to be implemented.	• 2.6 • 2.6 • 2.6 • 2.6 • 2.4, 2.8, 2.6, 2.9 • 2.6, 2.8, 2.9, 2.10 • 2.6, 2.9, 2.10	
2.2.3.3. Waste Rock Disposal	• Describe the various waste rock lithologies, quantities and disposal facilities. • Waste rock geochemical testwork and characterization in support of acid rock drainage and metal leaching properties should be described and presented, including methods of ARD leachate treatment. • The location of temporary and permanent disposal facilities should be mapped.	• 2.4, 2.5, 2.7, 2.9 • 2.4, 2.7, 2.9 • 2.1, 2.7, 2.8, 2.10	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	• Describe the waste rock disposal method(s), containment measures, quantities and dump locations for each type of rock waste; identify plans to characterize waste rock to determine which rock types will be selected for underground disposal. • Provide waste rock dump designs and include details of dump staging, scheduling, foundation conditions studies, design criteria (stability issues) and slopes. The effects of groundwater and permafrost on the dump foundations should be discussed and supporting data provided regarding the stability of foundations. • Identify and highlight any potential environmental concerns and discuss techniques or methods to address potential issues as part of the disposal plan; pay particular attention to any waste handling methodologies critical to successful management (segregation, blending, etc) and the relevant practices, required skills, training and QA/QC measures.	• 2.5, 2.7, 2.8 • 2.7 • 2.5, 2.7	
2.2.3.4 Tailings Disposal	• Present a detailed analysis of the failure consequence rating for the tailings dam in context of the Canadian Dam Safety Guidelines; Kaska interests, downstream values such as Money Creek, Frances Lake and costs associated with remediation of a catastrophic dam breach and tailings release must be discussed. • Provide a rationalization of site selection for the tailings dam, including a discussion of alternatives considered and reasons for their rejection. • Engineering drawings and designs are required for tailings impoundment. • Provide a seepage sensitivity analysis where tailings beach permeability and foundation permeability are varied. • A preliminary tailings deposition plan should be provided; focus particular attention to procedures critical to the success of management plan needed along with a discussion of the skills, training and policies regarding implementation. • Provide details on the ARD/metal leaching characteristics of the proposed mine backfill material and the long-term implications of this proposed disposal method of the coarse tailings fraction. • It should be made clear what the tailings dam design volume will be and the implications of an increase in mill throughput. The proponent must ensure that the current design includes excess capacity for the proposed mine plan and the volumes of tailings and SPAG materials to be stored in the facility. • Provide details (including specifications) of dam design including design criteria; stability as well as durability issues must be considered. • Provide a downstream/receiving waters risk assessment. • Describe the dam area surficial materials, foundations and provide information on geotechnical conditions, permafrost, slopes, seepage control, and piezometric surface; changes in piezometric surface (and other parameters) should be modelled during the various operational phases of the project. • Identify potential for hydraulic connectivity between tailings impoundment and underlying aquifers, and any measures to be taken to reduce this connectivity. • Provide details on the proposed seepage collection system and long term seepage control and management, including post-closure care and maintenance. • Describe the materials and characteristics and locations, including flood design criteria for all	• 2.8 • 2.2 • 2.8 • 2.8 • 2.8 • 2.4, 2.5, 2.8 • 2.8 • 2.8 • 2.8 • 2.8 • 2.8 • 2.8	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	components, including tailings dam, spillways and diversions; describe the volumes and sources of material required for the structures.		
	• Provide a detailed water balance for the tailings pond and anticipated containment releases from the tailings impoundment. The water balance should provide worst-case scenarios in regard to wet and dry climatic conditions, and should include any groundwater flux component.	• 2.8	
	• Provide details on how water would be reclaimed from the impoundment for water recycling/treatment.	• 2.8, 2.9	
	• Discuss facility staging and future dam additions and designs.	• 2.8	
	• Outline contingency plans, including structures that will be in place in the event of failure/breach of the tailings impoundment.	• 2.8	
	• Discuss impacts the tailings impoundment would have on physiography, air quality, climate, erosion, terrain/slope stability, permafrost, hydrology, groundwater (including surface-groundwater interactions), water quality, etc. (refer to the Mining Association of Canada's guide to Management of Tailings Facilities).	• 2.8,2.9	
	• Provide adequate detail in determining that 0.5m of water cover in tailings impoundment is sufficient to prevent tailings suspension and/or sulphide oxidation, given that prevailing winds can vary the water depth by at least 0.5m, and given variability and extremes.	• 2.8	
	• Discuss expectation and implications of invertebrate population developments in tailings impoundment facility and implications in relation to birds (particularly migrating shorebirds), including predictions for acute and chronic effects.	• 7.4	
2.2.3.5 Site Water Management Facilities and Associated Infrastructure	• Describe water management systems, including diversion, withdrawal, drainage operations, stormwater management, sediment control (including the settling ponds proposed for the portal and borrow areas) and impoundments. A water management plan should be developed for the project.	• 2.5, 2.8, 2.9, 2.10	
	• Present overall quantities of water required for milling, camp and other purposes and define adequate sources of water, including during winter low-flow conditions.	• 2.6, 2.9, 2.10	
	• Provide details on any potential diversion dams, channels and gated culverts.	• 2.8	
	• Provide clarification with respect to recycling tailings water to the mill and the handling of tailings seepage.	• 2.8	
	• Describe proposed water management plans for the waste rock storage areas.	• 2.7, 2.8	
	• Provide a mine annual water balance cycle including sources and quantities of all process water and estimate of its chemical composition at different stages of the mining process. Describe with supporting test work the discharge/tailings effluent and proposals for segregation, treatment and/or recycling.	• 2.6, 2.9	
	• A load balance on the mill water balance is recommended, particularly for arsenic and selenium.	• 2.6, 2.9	
	• Provide hydrogeologic modelling and supporting data to provide predictions on whether the underground workings will decant and estimates of water quality.	• 7.6, 2.4	
	• Predict the levels of contaminants of concern, including ammonia, in the effluent and in receiving/downstream water courses.	• 2.8, 2.9	
	• Provide information demonstrating that the proposed water treatment plan can effectively remove all contaminants of concern, including arsenic and selenium (existing water treatment plan will need revision to effectively remove selenium and arsenic).	• 2.9	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	• Present a water management plan including activities and programs to address wastes not discussed above. Discuss all effluents and emissions released including process by-products and waste products and outline plans for waste control, treatment and management strategies. • Sensitivity analysis should be completed on the water balance for the tailings impoundment to verify that a water cover of sufficient depth can be maintained during dry and extremely dry years. • Describe the types and volumes of wastes material that will be generated by the Project including: gaseous, liquid, and solid waste. A prediction of the chemical, biological, physical, toxicological and radiological characteristics of any final discharges and any anticipated seepage should be made. The disposal methods for each type of waste should be described. Preliminary engineering drawings are required for any impoundment structures. • Describe the treatment regime that will be used for excess mine water at Wolverine including point of release, conditions of release, nature of contaminants in untreated and treated effluent, sludge stability and disposal options. • Provide details on the stability and concentration of metals/metalloids, including selenium, in the lime sludges generated from the HDS treatment plants including the assessment and monitoring of the fate of these metals/metalloids including selenium and antimony in the different treatment pathways.	• 2.9, 2.10 • 2.8 • 2.5, 2.8, 2.9, 2.10 • 2.8, 2.9 • 2.9	
2.2.3.6 Site Facilities and Associated Infrastructure	• Describe the size and location of site facilities including processing facilities (i.e. mill, processing plant), waste and garbage disposal areas, mine and camp facilities, fuel storage facilities, explosives manufacturing, storage and related infrastructure, powerhouse or transmission lines and other infrastructure (e.g. pumphouse, pipelines). Identify facilities that will be needed during construction, operation and decommissioning. • Describe the other associated infrastructure necessary for the project including site camp. • Describe the energy requirements for the Project and the energy sources and quantities that will be used to meet these requirements. Identify the possible energy sources (i.e. connection to existing grid, diesel etc.) that could be used. Alternative energy sources should be identified and reasons given for their rejection. Plans for energy efficiency and conservation measures should also be identified (see MAC web site under Energy for guidance on development of energy efficiency plans).	• 2.10, 3.2,3.3,3.4 • 2.10 • 2.10, 2.2	
2.2.3.7 Transportation	• Describe site access roads and airstrips. Map access road and airstrip locations and indicate any stream crossings. Indicate whether access is seasonal or permanent. • Identify and quantify sources of non-reactive material for road (and other) construction, and geochemical properties of any cuts that may expose sulphide bearing mineralization during road construction. • Provide information on measures to be taken to protect the safety of air passengers and crew, to prevent aircraft collisions with caribou and other wildlife that may be on the runway during takeoffs and landings. • Describe access management/control methods off the Robert Campbell Highway to ensure private road/company use only. • Describe supply transportation requirements to project area. Indicate ore/concentrate transportation routes and destinations. (Outline special handling and loading and emergency plans for hazardous	• 2.11 • 2.11, 2.4 • 9.5 • 2.11 • 2.11	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	materials.) Any highway improvements that may be required to accommodate maximum loads should be considered. • Discuss how the existing condition of the Robert Campbell highway will affect the project, including springtime weight restrictions; discuss the effects of the project on highway conditions and safety.	• 2.11	
2.2.3.8 Accidents and Malfunctions	Present emergency plans including: • fuel and other hazardous material spills; • spill and/or accidents on the access and concentrate haul route within the Yukon; • water inputs which exceed retention capacity; • accidents or malfunctions of key project components such as tailings containment area, dykes and diversions; • tailings facility, waste rock, ore stockpile and overburden storage areas, open pits, underground facilities and water treatment facilities in the event of a temporary shutdown; • ground failures during the mining process including provision for mine rescue; • general emergency situations such as fire and natural disasters (e.g. earthquakes, landslides, floods); and • contingency plans in the event of failure/breach of the tailings impoundment.	• 9.3, 9.4 • 8,9.3,9.4 • 2.8, 2.9 • 8 • 3.4 • 9.3 • 9.3, 7.15 • 2.8, 9.1, 9.3	
2.2.3.9 Hazardous Materials Management	• Present plans for transporting, handling, storing, using and disposing of hazardous materials.	• 9.4	
2.2.4.1 Project Schedule	• Provide an expected and realistic timetable of the project by phase. Discuss any project time constraints. Outline the scope of possible future phases of development such as ongoing exploration, or planned expansion.	• 3.1	
2.2.4.2 Construction Phase	• Describe the construction phase activities related to each major component of the project, and the associated infrastructure. Activities to address include: site preparation, earthworks (e.g. borrow pits, quarries, stream crossings, cut and fill activities), material lay down and disposal storage areas, blasting (e.g., explosives manufacturing, transportation, and storage), drilling, construction, stockpiling and salvaging of soils and overburden material for later use and rehabilitation (including removal of temporary services). • Demonstrate adequacy of supply and chemical stability for any aggregate materials to be accessed on site. • For constructed engineered works (e.g. tailings impoundments, waste rock dumps, sediment control dams) describe construction quality control / quality assurance features. • Provide information on the location and magnitude of workforce requirements, and schedule. • Outline and describe key project and design features and construction techniques/technologies, and key management approaches/procedures. • Describe activities related to the use, transportation, storage and handling of supplies, especially fuels and hazardous materials on site during the construction phase. • Outline risk management approaches, including accident, malfunctions and emergency response measures that will be in place during the construction phase. • Describe environmental monitoring plans that will be put in place during the construction phase of the project.	• 3.2 • 3.2, 2.8 • 2.7, 2.8, 2.10 • 3.2 • 2.10, 3.2 • 2.10 • 8, 9.3 • 7 – monitoring and follow-up sections, 9.1	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	• Provide details on sediment control measures and contingency response.	• 9.1	
2.2.4.3 Operations Phase	• Describe the mining operation phase, and associated infrastructure and activities. Focus on those activities likely to have greatest environmental impact. • Provide information on the location and magnitude of workforce requirements, and schedule during the operations phase of the project. Outline workforce infrastructure and management. • Provide a mine annual water balance cycle including sources and quantities of all process water and an estimate of its chemical composition at different stages of the mining process. Describe with supporting testwork the discharge/tailings effluent and proposals for segregation, treatment and/or recycling. Identify seasonal or temporal factors in water use throughout, or between years and identify environmental or operational reasons. • Outline any concurrent progressive reclamation activities and provide a plan for temporary shut down of operation (active maintenance of site by proponent) for all components of the proposed project. • Describe activities related to the use, transportation, storage, and handling of supplies, especially hazardous materials. • Present a waste management plan including activities and programs to address wastes not discussed above. Discuss all effluents and emissions released including process by-products and waste products and outline plans for waste control, treatment and management strategies. • Provide an environmental protection plan outlining management, protection, monitoring and audit strategies. The plan should discuss risk management approaches and include discussion of responses to accidents and malfunctions as well as emergency response measures. • Provide an environmental monitoring program to monitor various environmental attributes that may be affected by the operation. This should include water resources, aquatic resources, wildlife monitoring, as well as physical structures monitoring programs. • Describe energy supply systems including energy conservation and heat recovery systems. • Provide a temporary closure plan.	• 3.3 • 3.3 • 2.6, 2.8, 2.9 • 2.10, 3.10 • 2.10, 9.4 • 2.10, 9.4, 3.4 • 9.1,9.2, 8 • 7- monitoring and follow-up sections • 2.10 • 3.4	
2.2.4.4 Decommissioning and Post-decommissioning Phases	• Describe the decommissioning plans, including overall objectives and any factors that will affect final decisions on, and implementation of, decommissioning activities. • Provide decommissioning and closure plans including all components of the proposed project including underground workings, open pit, mill/camp area, air strip, ore haul road and access road, temporary and waste rock storage and tailings facilities. These plans should include scheduling for the various components. • Provide details on proposed decommissioning strategies for waste rock storage area and geochemical issues with the underground workings including discharges, including information on the amount of time water treatment is expected to be required post closure. • Describe to the extent possible the specific activities of the decommissioning and post-decommissioning phases, for example their location, magnitude, schedule and workforce requirements. Focus on those activities likely to have significant environmental impact. Highlight situations where converging activities create the potential for greater disruption. Include a description of proposed key technologies and processes. • Government's expectation is that long term structures will be stable. For guidance on design	• 3.4 • 3.4 • 2.7,2.4,7.6,2.8,2.9 • 3.4 • 2.8	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	criteria for the purposes of obtaining a Water Use Licence see: http://www.yukonwaterboard.ca/Forms/quartzguidelines.pdf section 4 in particular. • Provide precedents for leaving a permanent hydraulic risk at a site by maintaining a permanent water cover in the tailings impoundment. Leaving a permanent hydraulic structure may require a formal risk assessment. • Provide and justify dam spillway design criteria with respect to the consequence rating of the dam and to the full catchment area when the diversion ditches are removed. • Provide a sensitivity analysis of the water balance for the closed tailings impoundment to evaluate the effects of extreme weather events in the very long term. • Provide a water quality prediction for the mine water in the closure and post-closure periods. • Provide predictions on whether the underground workings will decant following flooding and estimates of the water quantity and quality. • Provide a plan for managing portal discharge water in the post-closure period should the water quality be unacceptable for direct discharge to the environment. • Describe proposed practices for the management of solid wastes, liquid effluent (and sludge) handling and disposal, gaseous emissions, and water use; and proposed risk management approaches, including emergency response measures. Identify any options for the post-mining use and condition of the site and its infrastructure. • Provide details on the plans for monitoring, assessment and maintenance during closure and post-closure. • Access to the site will be needed for monitoring and possibly repair work in the very long term; plans for providing, yet restricting this access need to be provided. • The proponent should demonstrate that under post-closure conditions, the backfilled stopes will be below the water table. • Present and describe financial security requirements for closure. Decommissioning plans at a conceptual level should be costed for an estimation of mine reclamation bonding requirements.	• 2.8 • 2.8 • 2.8 • 2.4, 2.9 • 2.4, 7.6 • 7.6 • 9.3,9.4 • 7 – monitoring and follow-up sections; 3.4 • 2.11 • 7.6 • 3.4	
2.3.1 Alternative Means of Carrying Out the Project	• Identify and document feasible alternative means considered for the project or for components of the project. Indicate the methodologies used for alternative selection. Selection constraints should include engineering and cost, biophysical or land use, socio-economic or cultural/heritage concerns. An alternative means analysis must include alternatives for tailings disposal (sites and methods) other than the option proposed (tailings disposal is not only issue of interest for alternative means analysis but is a particular one). • A comparison of the alternatives considered should be presented based on the above assessment. Preferred alternatives should be stated with a rationale for selection.	• 2.2 • 2.2	
2.3.2 Alternatives to the Project	• Present alternatives to the project and rationale for selected option.	• 2.2	
2.4 Description of the Existing Environment	• This section should demonstrate the proponents understanding of and respect for the functioning and health of the physical, biological, social and economic environments as they exist now, and to the extent possible, as they existed prior to the discovery of the Kudz Ze Kayah ore body. • Emphasis should be placed on those components that are likely to be affected by the Project and on those identified as issues of concern during government, stakeholder, First Nations and public	• 7 – Baseline conditions sections • 7 – Scope of assessment sections	• Baseline ecosystem mapping based on 1999 airphotos, prior to test mine disturbance.

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	consultation. • Outline the methodology and standards and schedule used for the collection of information.	• 7 – Baseline conditions - methods sections	
2.4.1.1 Physiography	• Describe the regional setting for the area (including eco-regions), including such key terrain features as mountains, rivers and lakes. Identify existing infrastructure or communities.	• 7.3	
2.4.1.2 Surficial Geology	• Provide any surficial soils mapping and identify soil types and areas of concern, including permafrost and erosion potential. • Include a description of surficial materials such as grain size, permeability, moisture content and density and other relevant physical, geochemical and geotechnical properties. Particular attention should be paid to the evaluation of permafrost. Characterize the spatial extent, temperature, moisture content, thickness, thaw stability (and criteria used to assess) and stability of the material. This information is needed to assess the adequacy of surficial materials that may be used for construction purposes or as foundation materials for a physical structure. • Pre-disturbance surficial geology information should be conducted with a view to the eventual decommissioning and reclamation of the project.	• 7.3	
2.4.1.3 Terrain Hazards	• Identify natural features and hazards found within the project area, including slides, avalanche zones, flood hazards. Provide information on area seismology and earthquake potential (maximum credible earthquake, maximum ground accelerations associated with a 1 in 475 and 1 in 1000 year return earthquakes; refer to the Canadian Dam Safety Guidelines and other codes relevant to site infrastructure).	• 7.3 - terrain hazards • 2.8, 7.15.1 - seismic	
2.4.1.4 Climate	• Provide a description of general climatic conditions in the Project area for at least one full annual cycle in the drainage. Report monthly extremes, and means for temperature, precipitation and snow depth. Provide wind velocity and direction information, aspect of solar radiation and evaporation rates. • Outline regional analysis used to generate meteorological parameters for design purposes.	• 7.1.2	
2.4.1.5 Air Quality	• Provide background information through monitoring on existing ambient conditions and any current emissions in the Project area air shed.	• 7.2.2	
2.4.1.6.1 Hydrology	• Provide a general description of site hydrometeorological conditions. • Summarize project site meteorological data and assess its accuracy. • Summarize project site hydrometric data and assess it accuracy. • Provide a characterization of site hydrology including: – annual runoff; – mean monthly flows; – flood flows; and – drought flows. • Assess if regional hydrometric data used for characterization purposes are representative with respect to: – station location; – record length; and – physical basin parameters. • Provide a detailed water balance for the proposed tailings pond for flow scenarios ranging from	• 7.4.2 • 2.9 – water balance	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	extreme dry to extreme wet. • Provide rationale for selecting design event return period for all hydraulic structures (diversion ditches, stream crossings, spillways).	• 2.8	
2.4.1.6.2 Water Quality	• Provide baseline water quality data including water column, water supply, and receiving environment information. • Include an assessment of groundwater quality in representative areas of the development area. • Choose representative sample sites that best characterize the hydrologic network upstream and downstream of project works; consider factors such as access to facilitate repetitive visits; geo-reference sample sites by GPS. • Describe sampling program; program must, for the purposes of the EAR, meet the following criteria: a) Sampling must be according to accepted protocols at least monthly to characterize seasonal water quality, including spring melt and winter low flows; describe any plans to codify protocols. b) Include field measurements of physical parameters such as pH, dissolved oxygen, temperature, conductivity and flow rates. c) Analysis of samples at an accredited lab within the necessary timeframe (this requires close attention when working in remote areas).	• 7.5.2 • 7.6.2 • 7.4.7 • 7.5.1, 7.5.8	• 7.5.2 includes baseline data to August 2005; additional water quality and sediment data to November 2005 will be reported in an addendum report, to be submitted in December 2005
2.4.1.6.3 Hydrogeology	• Provide a description of the geological elements and processes that affect the hydrology and hydrogeology of the project area watersheds. • Provide supporting data to characterize. • Conduct baseline hydrogeological and hydrogeochemical studies to characterize the groundwater regime of the area, permafrost, depth to groundwater aquifers, hydraulic heads and gradients, hydraulic conductivities and regional groundwater flow patterns, including surface-groundwater interactions. • Provide details on the groundwater conditions under the permanent and temporary waste rock storage areas, as well as the tailings impoundment (See s. 2.2.3.4 of these guidelines for more specific requirements relating to tailings impoundment hydrogeology requirements). • Document the location of the water table in the area of the underground workings and by the use of flow modelling, demonstrate that after closure, the backfilled stopes will be beneath the water table and identify discharge locations for waters from flooded workings. • Identify the presence of, and the potential longevity of soil attenuation capacity in the development area.	• 7.2.6	
2.4.1.7.1 Fish Resources	• Include information and baseline data on study methods, riparian habitat surveys, fish sampling, and results of other fieldwork within affected drainages. • Analysis of the fish capture data should be undertaken to delineate species abundance and spatial and temporal distribution. • Document critical and sensitive habitats, spawning periods and locations, rare and/or endangered species and habitats. • Provide details on fisheries resources and aquatic habitat at all stream crossings on the proposed ore haul route(s).	• 7.8.2	• 1:50,000 scale maps would require several maps, some of which would contain little information. A 1:80 000 scale is appropriate to accurately present information for the LSA and effectively support the

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	• 1:50 000 map of fisheries resource.		text discussion.
2.4.1.7.2 Benthic Invertebrates	• Provide results of sampling with summary of inventory including species abundance and spatial distribution. • Discuss specifics of sampling program, including future plans such as scale-up to a full Benthic Index of Biological Integrity (BIBI) protocol.	• 7.7.2	• 7.7.2 includes baseline data to August 2005; additional benthic invertebrate sampling from September 2005 will be reported in an addendum report, to be submitted in December 2005
2.4.1.7.3 Periphyton	• Provide results of sampling and collected baseline data, describing sampling sites, and determining taxonomy, biomass, chlorophyll concentration.	• 7.7.2	• Periphyton sampling from September 2005 will be reported in an addendum report, to be submitted in December 2005
2.4.1.7.4 Stream Sediments	• Provide information describing the geological and chemical characteristics of stream bed sediments (grainsize and dissolved metals analysis) in the project area including the ore haul road.	• 7.5.2	
2.4.1.8.1 Soils	• Include terrain mapping details, soil classification, and erosion potential. Descriptions should also include consideration of attributes that influence or facilitate runoff, such as infiltration and rates of percolation, slope, aspect, vegetation, presence of and extent of permafrost and thickness of the active layer.	• 7.3.2	
2.4.1.8.2 Vegetation	• Provide information on study methodology, results of vegetation cover and biogeoclimatic classification, include any identified rare and/or endangered species and ecological reserves. Description level should be of such quality that an assessment can be conducted as to whether key habitat for important wildlife species is present in the project area. • Provide information on forest cover and land capability, including stand types and characteristics, and approximate volume/density estimates. • Pre-development and plant communities existing on sites that may be disturbed as a result of development should be documented to the species level and note made of the site and community characteristics so that efficient and suitable selection of species for reclamation seed selection may be achieved. • Provide details on the levels of metals in vegetation in the project area including the ore haul route and the main mine access route.	• 7.9.2	
2.4.1.8.3 Wildlife	• Describe major wildlife species abundance and distribution within the project area including the proposed ore haul route, including mammalian fauna, amphibians and birds (migratory and non-migratory birds). • Identify and describe critical/key and sensitive habitats; identify movements and periods of habitat use in the project area. • Identify how the *Migratory Birds Convention Act* and Migratory Birds Regulations will be incorporated into the project planning and development. • Identify potential pathways for introduction of contaminants into the food chain as a result of project activities.	• 7.10.2 • 7.10.2 • 7.10.1 • 7.10.4	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	• Identify those species that reflect a general level of public and government awareness and concern (Valued Ecosystem and Cultural Components or VECCs) on the basis of perceived intrinsic value, economic importance, traditional use, recreational value, rarity, legal, scientific value and sensitivity. • Identify the presence of, or vicinity of any species at risk as defined in the *Species at Risk Act*. • Identify preventative measures to be in place to address potential human/wildlife conflicts (such as putrescible waste storage and disposal plans, electric fencing, etc.). • Describe management to control hunting pressure in the project area, particularly the Finlayson Caribou herd (the Finlayson Caribou herd should be discussed in the cumulative effects analysis – see section 3.6 of these guidelines). • Identify any additional or ongoing studies or monitoring programs.	• 7.10.1 • 7.10.2 • 7.10.4, 7.10.6 • 7.10.4, 7.10.6, 9.5	
2.4.2 Social, Economic and Cultural Conditions	• Provide community profiles for the communities that will be affected by the project. Describe indicators used to measure the factors listed below. • Community demographics (population size, distribution and composition) • Quality of life: – Education – Community/social cohesion (family break-up, living stability, public trust, social ties, volunteerism, substance abuse, etc.) – Crime – Spiritual (religious/spiritual life) – Level of satisfaction with community life • Economic Conditions – Economic base (economic sectors and contribution to local economy, including traditional economy) – Employment (labour force, unemployment rate, labour skills) – Income (local and territorial income patterns) – Business development (local businesses) • Recreational opportunities or amenities (for additional information on recreational potential of the area, refer to **Recreational Features Inventory Southern Yukon** - Juan de Fuca Environmental Consultants, Canwest Recreational Consultants and J.S, Peepre and Associates, 1987 – available from YG dept. of Environment. • Home life or personal security • Future land uses • Future use or future production of commercial species • Provide the following information on the Project Area. Indicate and identify the information on maps, where possible. • Land tenure and designation (leases, ownership, mining claims, settlement or interim protected land, traditional territories, parks, land use plans, special management zones, etc.) • Physical infrastructure (roads, trails, powerlines, communication lines, habitations, cabins, camps, campgrounds, facilities or other structures) • Current and future land and resource uses - both commercial and recreational, non-aboriginal use:	• 7.14.2 • 7.14.2 • 7.14.2 • 7.14.2 • 7.11.2 • N/A • 7.11.2 • N/A • 7.11.2 • 7.11.2 • 7.11.2	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	• Recreational fishing, hunting, gathering, hiking etc. • Subsistence fishing hunting and gathering. • Trapping concessions - Identify all registered trapping concession holders affected by the project. Discuss the frequency, intensity, and location of trapping activities in the area. • Forestry - Identify all forest management and/or timber harvesting activities in the area such as cut blocks or access roads, permitted or otherwise. • Agriculture • Fisheries - Provide information of cultural, subsistence and commercial fishing activities. • Commercial wilderness activities (including guided fishing, outfitting, hunting and others as applicable). • Mineral and oil and gas activity.	• 7.12 • 7.11.2 • 7.11.2 • 7.11.2 • 7.11.2, 7.12 • 7.11.2 • 7.11.2	
2.4.3 Physical and Cultural Heritage Resources	• Identify and describe archaeological, paleontological and historical resources on lands that will be affected by the project. In consultation with the Kaska and the Yukon Heritage Resources Unit, indicate proposed mitigation of project impacts on heritage resources. • Describe plans and measures that will be taken to protect heritage resources, including protocol for when a heritage resource may unexpectedly be discovered. • Incorporate previous work on heritage resource assessment in the area into the EAR. • Provide details on the timing and scope of any proposed archaeological impact assessment work to be carried out.	• 7.13, 7.12 • 7.13, 9.6 • 7.13.2 • 7.13.7	
2.4.3.1 Current Land and Resource Use for Traditional Purposes	• Provide information on current land use and resource use for traditional purposes by aboriginal persons.	• 7.12	
2.4.4 Valued Ecosystem and Cultural Components (VECC's)	• Present the selected list of expected VECCs for the project and the methodology and rationale used for selection; justify VECC boundaries. Selection of VECCs should include a consideration of perceived intrinsic value, economic importance, traditional use, recreational value, rarity, legal, scientific value and sensitivity. • The proponent should describe how Traditional Knowledge was used in the determination of VECCs.	• 7 – Scope of assessment sections • 5, 7 – Scope of assessment sections, 7.12	
2.4.5 Relationships between Environmental, Social and Economic and Cultural Components	• Identify the key environmental, social and economic relationships that may be affected by the project. Effort should focus on those components identified as being most important according to the issues and concerns raised by government, stakeholders, First Nations and the public.	• 7 – Scope of assessment sections • 7 – Effects assessment methodologies sections	
2.4.6 Sensitivity to Disturbance	• Describe the sensitivity of each environmental, social and economic component to the project activities that may affect it. • Document the methods used to define sensitivity.	• 7 – Effects assessment methodologies sections	
• 3. ENVIRONMENTAL EFFECTS ASSESSMENT			
3.1 Scope of the Project	• See section 1.3 of this table	•	
3.1.2 Scope of the Assessment	• The proponent must consider the factors, and scope of factors, necessary to meet the requirements of EAA as set out in the definition of environmental effect and as described in Section 12 of EAA – Environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project;	• 7 – Project effects sections • 8 – Accidents and	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	– cumulative environmental effects, includes identifying other projects and the cumulative environmental effects of those projects in combination with the proposed project ; – social and economic effects of all phases of the project; – significance and likelihood of the effects; – public, government and stakeholder comments; – traditional knowledge; – mitigation measures; – purpose of the project; – alternatives to, and alternative means of carrying out the project; – the requirements of a follow-up program; and – sustainability of renewable resources. • For the purposes of scoping the activities of other past, current or future projects in the cumulative effects assessment, spatial and temporal boundaries must be clear and differentiated from the spatial and temporal scope of the overall effects assessment. • The projects or activities to be considered in the scope of the cumulative effects assessment should be explicitly identified.	malfunctions • 7 – Cumulative effects sections • 7.14 • 7 – Project effects sections • 5 – Project consultation • 7.12 – Traditional knowledge • 7 – Mitigation measures sections • 2.1 – Project purpose • 2.2 – Project alternatives • 7 – Monitoring and follow-up sections • 6 • 7 – Cumulative effects sections • 6	
3.2 First Nations and Public Consultation	• Provide a distribution list of the parties who have been consulted by the proponent. • Describe the consultation methods used to identify, inform and solicit input from potentially interested parties. Identify who provided input and their key concerns. Outline similarities or differences in perceived viewpoints. • Describe how First Nations were consulted and how their specific concerns, issues and comments were identified and incorporated into the EA. • Describe how First Nation's traditional ecological knowledge was sought, and integrated into the EA including scoping of valued ecosystem and cultural components, description of the existing environmental conditions, predictions of environmental effects, development of mitigation measures, evaluation of significance, and monitoring and follow-up. • Describe and discuss how public comments or concerns relating to the project and environmental effects were identified and integrated into the EA.	• 5, 7.12	
3.3.1 Methods Used to Predict Effects	• Describe the methods used to predict the potential effects of project activities on environmental components. • For quantitative modelling and predictions, a discussion of the model assumptions, input parameters, calibration, sensitivity, data quality, and the confidence levels should be included. • Identify any consultations and how traditional knowledge was used in determining and predicting and mitigating environmental effects.	• 7 – Effects assessment methodologies sections • 5 • 7 – Scope of assessment sections	
3.3.2 Effects on the Environmental Components	• Describe the predicted project effects on the environmental components, that the construction, operation, decommissioning and post decommissioning of the project will have, with a focus on VECCs.	• 7 – Project effects sections	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	• The effects assessment should incorporate comments previously provided to the proponent following the Project Description review as well as concerns raised in ongoing First Nations and public consultation and government review.	• 5 • 7 – Scope of assessment sections	
3.3.3 Effects of Environmental Changes on Human Health	• Describe the predicted effects of environmental changes on human health, including the health of workers at the mine.	• 2.2, 2.5, 2.10	
3.3.4 Effects of the project on Social and Economic Conditions	• Describe the predicted social and economic effects of the project during all phases of the development, including effects of environmental changes on social and economic conditions due to the project. Clearly describe indicators used for measurement of such effects. Effects on social and economic conditions include effects at the population or community level on: a) the quality of life, or "way of life"; b) the economy, commercial opportunities, or employment; describe: – Wage and salary employment by skills category over the life of the Project, including participation of Yukon workers. – Details on commitments to train and employ local workers. – Availability of skilled workers and contractors locally and territorially. – Impediments to the use of local & territorial workers and contractors; identify training or retraining necessary for workers to meet proponent's standards. – The possibility of worker 'in and out' migration to and from local area and territorially, and effects of such migration. – Opportunities for local and territorial business to supply goods and services, both directly to the proposed development and to meet demand created by the expenditures of workers and contractors. – Opportunities for economic diversification. – Effects on subsistence economy. – Contribution or costs of Project to Yukon and federal revenues. – Cost of living impacts, both locally and territorially. c) the availability of recreational opportunities or amenities; d) home life personal security and health (other than as a direct result of environmental changes); e) future land uses; and f) the future use or production of commercial species or resources. • In order to assess and address traffic safety concerns, social and economic effects and public funding issues, the proponent must provide details on the impacts this project is expected to have on the Yukon's highways, including the present condition of the Robert Campbell Highway, and other transportation network components (i.e. air traffic routes). • The proponent should use the most current data and statistics where applicable.	• 7.14 • 7.14.4 • 7.14.4 • 7.14.4 • 7.14.4 • 7.14.4 • 7.14.4 • 7.14.4 • 7.14.4 • 7.14.4 • 7.14.4, 5 • 7.14.4 • 7.14.4 • 7.11.2 • N/A • 7.11.2 • N/A • 7.14.4, 7.14.6 • 7.14.2	
3.3.5 Effect of Environmental Changes on Physical and Cultural Heritage	• Describe the predicted effects of environmental changes, on physical and cultural heritage. • Provide details, including the scope and timing of heritage resource assessment. Reference should be made to the recommendations made by Greer 41-42(Greer, Sheila, 1996, **Field Report of Activities and Preliminary Results, Wolverine Lake Mine Development**, **1996 Archaeological and Historic Sites Impact Assessment**. ms. on file, Yukon Heritage Branch, Whitehorse, and	• 7.13.4 • 7.13.1, 7.13.2	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	Canadian Museum of Civilization, Ottawa) for scoping the environmental assessment or the recommendations should at least be addressed for their relevance to the Wolverine Project. • Continuation of heritage resource assessment as development continues. • Continuation of traditional site and land use research with Ross River Dena elders - the Ross River Dena Council continues to have concerns with regards to their traditional sites and the work carried out by Greer is viewed as preliminary in nature. • Consultation with Kaska on priorities for site protection. • Cultural heritage survey is required on final route selection of access road. • The Kaska are particularly sensitive to any disturbance of grave sites. The location of graves will require additional work with Kaska Elders. • Further ground survey in the main Wolverine development area is recommended as sites are difficult to locate and only limited survey was made by Greer.	• 7.13.7 • 7.13.7, 5 • 7.13.7 • 7.13.7, 5 • 7.13.7, 5, 9.6 • 7.13.2	
3.3.6 Effects on Sustainable Use of Renewable Resources	• Identify any renewable resources potentially affected by the project • Discuss any affects the project could have on the capacity of renewable resources to meet present and future needs. • Include direct and indirect effects of the project on resource capacity. • Identify the methods used to determine capacity.	• 7 – Project effects sections • 7 – Project effects sections • 7 – Project effects sections • 7 – Effects assessment methodologies sections	
3.3.7 Effects of the Environment on the Project	• Identify the predicted effects of the environment on the project including those identified in Section 2.4 and those associated with extreme climate events. • Identify the predicted effects on the project of climate change such as effects of changes on precipitation/water balance/supply, effects of changes in permafrost regimes on the stability of foundations and containment structures, implications for tailings impoundment, etc. Relevant timeframes should be identified.	• 7.15 • 7.15.5	
3.3.8 Effects of Possible Malfunctions or Accidents	• Identify and describe the possible malfunctions or accidents associated with project activities. • Identify the proposed safeguards that will be established to protect against possible malfunctions and accidents. • Identify the contingency/emergency responses procedures that will be in place if a malfunction or accident does occur.	• 8 • 8, 2.10 • 8, 9.3	
3.3.9 Effects on the Project on the Current Use of the Land for Traditional Purposes by Aboriginal Persons	• Describe how the Project, through its various phases, may affect the current use of the land by aboriginal persons.	• 7.12	
3.4.1 Mitigation	• The proponent should determine mitigation for the project using the following steps: 1. Describe the potential environmental effects (as defined in EAA), social and economic effects. 2. Determine which effects are adverse 3. Propose mitigation to deal with each adverse effect (in some cases more than one option for mitigation could be proposed) 4. Determine the residual adverse effects that could occur after mitigation has been applied 5. Determine the significance of the residual effects	• 7 – Project effects sections • 7 – Project effects sections, mitigation measures sections • 7 – Project effects sections • 7 – Project effects sections	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	6. Determine how likely it is that the residual effects will occur	• 7 – Project effects sections	
	• Mitigation must be proposed for the adverse environmental, social and economic effects that could occur as a result of activities proposed for all phases of the project, including construction, operation, decommissioning and post-closure. A description of strategies, methodologies, schedules and plans for mitigation should be provided in the EAR.	• 7 – Mitigation measures sections	
	• Where possible, identify any thresholds that if exceeded, would result in a significant adverse environmental, social or economic effect.	• 7 – Project effects and cumulative effects sections	
	• Where damage to the environment and/or social and economic conditions will not be completely avoided, restitution measures should be described. This should include a description of commitments, approaches and specific options for restoration, replacement and/or compensation for any potential/predicted damage.	• 3.4, 7 – Mitigation measures	
	• In addition the following should be provided: – Outline contingency measures for accidents, failures and malfunctions.	• 8	
	– Describe health and safety programs for workers, the public and wildlife. – Describe material handling for hazardous materials or dangerous goods and provide any contingency plans for hazardous materials, particularly fuels and reagents or chemicals.	• 9.4, 9.3	
	– Outline any adaptive management plans that will be put in place.	• 7 – Project effects sections, mitigation measures sections, Monitoring and follow-up sections	
	– Present and describe any Environmental Management Systems or Environmental Protection Plans or programs.	• 9	
3.4.2 Residual Effects	• Provide an assessment of the significance of the likely adverse residual impacts including information on the methods used to assess significance. The methodology description should address both the process (e.g. professional judgement, public consultation, expert advisors) and the criteria for significance.	• 7 – Project effects and cumulative effects sections	
	• Develop significance criteria in relation to the type of impact, the probability of occurrence, the magnitude of the effect (e.g. the proportion of a species affected), and its geographic extent, frequency, duration and reversibility. Ecological context is critical to the determination of significance, since regions that have already been adversely affected by human activity, or are for other reasons ecologically vulnerable, will have less resilience to imposed stresses.	• 6, 7 – Effects assessment methodologies sections	
	• The likelihood of adverse significance should be determined by indicating the probability of occurrence and the degree of uncertainty or certainty surrounding impact predictions.	• 7 – Project effects sections	
	• Describe the set of standards used in the assessment.	• 7 – Effects assessment methodologies sections	
	• Indicate the level of confidence associated with each assessment.		
	• Describe positive impacts on people and communities associated with the predicted effects, including impacts on: – Human health (physical, psychological, spiritual).	• 7.11, 7.12, 7.13, 7.14	
	– Social and economic conditions (e.g. quality of life, current and future commercial opportunities, employment, current land and resource use). – Physical and cultural heritage (e.g. archeological and spiritual sites).		

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
3.5 Determination of Significance	• Clearly document the methods used to determine significance. Sufficient information should be provided to enable reviewers and the public to understand how significance of effects was evaluated. The significance of predicted environmental, social and economic effects should be evaluated according to the following: a) Magnitude of effects on VECCs; b) Geographic extent; c) Timing, duration and frequency; d) Degree to which effects are reversible within a reasonable period of time; e) Ecological, economic and social/cultural context; and f) Probability of occurrence and confidence levels (risk assessment). • Describe the set of standards used in the assessment. • Indicate the level of confidence associated with each assessment.	• 7 – Effects assessment methodologies sections • 7 – Effects assessment methodologies sections, project and cumulative effects sections • 7 – Project and cumulative effects assessment	
3.6 Cumulative Effects Analysis	• As much as possible, the CEA should focus on VECCs; effects on the Finlayson Caribou herd are of particular interest in the CEA. • Provide a list of and describe the activities of the other projects identified in the scoping, and indicate the environmental, social or economic effects on VECCs that are expected. • Discuss cumulative effects assessment techniques and tools employed. • Discuss the predicted environmental effects of the project in context of the other projects already underway or that will occur. • Document the sources of information used to identify other projects, and if possible briefly describe the methods used to determine the environmental effects of these other project activities. • Predict the cumulative effects. • Suggest how these cumulative effects should be avoided, mitigated, and managed. • Identify how the proponent plans to monitor residual cumulative effects.	• 7.10.4 • 6, 7 – Cumulative effects assessment sections • 7 – Effects assessment methodologies and cumulative effects sections • 7.11.2 • 7 – Cumulative effects assessment sections	
3.7 Monitoring and Follow-up Program	• Clearly define and identify a follow-up program to: – Verify the accuracy of the impact assessment and the predicted performance of the Project; – determine the effectiveness of any mitigation measures implemented and the need for modification to those measures to ensure impact predictions remain valid; – verify compliance with approval conditions; – identify unanticipated effects and environmental problems; – identify actions to be taken in the event that monitoring and evaluation reveals unanticipated effects on a VECC, and/or an unforeseen cumulative effect arises; and, – define a reporting program. • Specify who is responsible for financing and carrying out the follow-up program. • Describe how the results of the monitoring program will be used to refine or modify management plans, commitments and policies. • Describe how the results of the monitoring program will be used to implement additional mitigation	• 7 – Monitoring and follow-up sections	

Guideline Section No.	Requirements	EA Report Section where Addressed	Comments
	measures. • Include details such as sampling and analytical protocols, sampling and analytical equipment as an appendix.		
3.8 Appendices	• Provide references used in the EAR and any supporting data, reports, or other information used to document project information and support assessment conclusions.	• Volume 3	