

Risk assessment

Management Approach - Risk

By recognizing where our risk areas lie, we can take steps to reduce these risks and thus increase the probability of activities proceeding well without mishap or interruptions, and more importantly ensure the health, safety and wellbeing of our employees, the environment and the public. If an issue has the potential to significantly affect or impact risk, then it is material to the corporation.

Introduction

Full risk assessments are undertaken by De Beers Canada. Each mine and each department undertakes risk assessments at least twice a year and in most instances, these are updated quarterly. A common risk assessment template and set of risk assessment criteria are used across the company. All risk assessments are reported to the De Beers Canada Board and to the main Board of Directors for De Beers Société Anonyme. Risk assessments and analyses are used to highlight areas of concern that could materially affect the operations of the mines or the exploration projects, our employees and the communities in which we operate. These risk assessments include adherence or compliance with international agreed standards, codes of conduct and principles that are applicable to us. The risk assessment findings help us identify mitigation steps to reduce the risk to our activities, and to provide alternatives for different risk scenarios.

The company's rigorous risk assessment process assesses the existence of all internal and extraneous factors that could undermine the company's ability to meet its strategic objectives. These objectives fall under the broad aspirations of value growth, reputation protection and being a centre of excellence. Specific attention is directed towards the security of the diamond product and as a result, a holistic assessment is undertaken separately for the high risk areas of the mines specifically considering the potential incidence of corruption and what controls are required to mitigate the company against any inherent risks. The physical sections of the operations and ancillary offices that are considered less risky from a product security perspective were the subject of a more detailed risk assessment by a Diamond Control and Security Effectiveness Review undertaken by the De Beers Group Services in October 2010. The final report was still pending at the year end. The risk of corruption is included within the general assessment of risk within the lower risk areas of the mines and in the offices and these were reviewed during more detailed risk assessments during 2010.

In order to manage risks effectively, each department on each mine and in the corporate office and exploration division undertakes a detailed

risk assessment using a common methodology. The risks are initially assessed and ranked within a matrix to provide an "inherent risk". The "inherent risk" is the original risk before any controls or mitigation steps. The risk assessment is then adjusted after consideration of existing risk management strategies and controls to reach a "residual risk". This residual risk in turn is then considered, and additional mitigating strategies and controls are considered to provide improvements through consideration of what could be done, by who and when. The outcome of this third step is a "remaining risk". The remaining risk is what is left over after all the controls and mitigation steps that can be usefully employed are in place, and is used as the basis of the final risk assessment. Revisions of the risk assessment are undertaken at least every six months, and usually every quarter where risks are significant.

In the environmental area, for example, risk assessments are used to highlight priority areas for management plans and controls to reduce or eliminate the likelihood of minor, moderate or major environmental incidents. The risk assessments also assist in identifying opportunities for continuous improvement regarding responsible environmental behaviour. Examples of such behaviour include the reduction and re-use of material consumption, reduction of energy consumption and related emissions that could negatively affect climate change. Similarly, risk assessments of our communities of interest are used to identify potential areas where proactive or remedial action is required to increase two-way communication and understanding of our operations in order to reduce any misunderstandings or perceptions of on-going or future business plans. In general, we use the precautionary principle to guide the way we plan and undertake our activities across the company.

Similarly, risk assessments for other areas of the company are used to provide information on critical areas that warrant special attention. By focusing on these areas, we are able to adapt our way of carrying out our business so that both the likelihood of an event occurring, and also the severity of any incident are reduced.

At Snap Lake, work is continuing to find more effective ways to reduce the total dissolved solids content of effluent. Progress was made in the area of total dissolved solids concentrations. Several initiatives are currently underway to develop an effective management program that will proactively address a forecast increase during the later years of the mine life. Regarding the ramp up to full production at Snap Lake, the team is refocusing on new development and other efficiencies in 2011 that will help position the mine for a reaching their full production target.

Table 2-1: Major risks and opportunities for De Beers Canada as at 31 December 2010

	Risk	Opportunity
Snap Lake Mine and Victor Mine	Unfavourable exchange rates between the Canadian and US dollars (i.e. Canadian dollar near or at parity).	Greater efficiencies; tight cost controls; improvements in technology and processes.
	Limited access to or no winter road (i.e. poor weather).	Increase stocks of consumable materials at site including fuel, pursue opportunities to reduce consumption of consumables.
Snap Lake Mine	Total dissolved solids (TDS) level exceeds water licence parameters.	Close monitoring of TDS and complete hydrological studies to better understand changes in TDS levels and identify better methods to reduce TDS level in effluents. This risk has decreased since 2009, but may well increase later in the mine life.
	Inability to ramp up to full production after the downturn because of a shortage of skilled employees.	Attract, recruit and retain skilled employees.
	Inability to reduce excessive dilution.	Increase run of mine grade and recovery through reducing dilution by reducing mining country rock.
Victor Mine	Civil disobedience / unrest closing winter road to site or interrupting power supply.	Increased community engagement and more effective communications.
Exploration	Inability to gain access land for exploration because of unresolved issues between Aboriginal communities and government, or Aboriginal communities and De Beers results in longer timeframes for discovery and resource definition.	If access to land is obtained, this would be a strategic lever for success in growing the company.
	Uncertainties with the permit approval process and the new Mining Act amendments and Far North Act in Ontario create uncertainties and delays in work programs.	Discussions with Ministry of Natural Resources and First Nation personnel allow for clear understanding of process and streamlining of process going forward.
	Lower funding level following the economic downturn result in longer timeframes for discovery and resource definition.	Accelerated funding would help move projects forward faster and any discovery would thus have a shorter timeframe to reach a defined resource.

Risk and Climate Change

The risks to both our mines associated with the winter road access are a concern because of climate change. Mitigation efforts are focused on ways to reduce the dependency for fuel and other consumables. While most consumables are difficult to reduce, studies are underway to use wind power to reduce the fuel required for power at site, and thus reduce the volume of fuel needed annually.

The implications of climate change for both the Snap Lake and Victor Mines are identified as significant risks for both mines because both are serviced by seasonal winter roads for a short time each year. These winter roads are dependent upon temperatures being low enough for significant freezing to build an adequate ice base and sufficient snowfall to permit road construction and smoothing out of the winter road surface so that it is not too rough for vehicular traffic. If the climate is too warm for winter road construction, if there is insufficient snowfall, or if the winter road season becomes too short, the alternatives are (i) to build permanent roads, which is considered to be cost-prohibitive; (ii) to move all consumable spares and equipment by air; or (iii) to build a road less frequently in those years that are cold enough. The difficulty with this third alternative is that weather forecasting is not good enough to tell in advance whether or not the winter will be cold enough to freeze hard or have enough snow. The cost implications of both of the second and third alternatives are being monitored. The airstrip at Victor is being completed to its full designed and permitted length so that it can accommodate a large aircraft in case the need arises. However, there are some pieces of equipment that are too large to be moved by air, and other alternatives are being considered for these. Supply by air is estimated to be at least twice the cost of supply by road or more. The second alternative would result in increased costs for keeping larger stocks of consumables at site, and it does not address the issue of how to resupply the sites if there are warm winters for several years running.

Additional climate change risks include litigation risks, regulatory risks and reputational risks. Currently litigation risks are low because there is little relevant legislation linked to climate change. Emerging issues around carbon targets and carbon trading could result in a risk. However, this is not quantifiable at present. Similarly, regulatory risks are low and these are expected to evolve and grow if and when regulations are promulgated for carbon emissions.

A greater risk is a reputational one if we are not seen to be acting both proactively and responsibly to the issues related to climate change and to greenhouse gas emissions and our efforts to reduce our energy footprint. In this regards, our steps to investigate alternate energy sources and energy conservation must be reported to our communities of interest so that they can see that we are addressing this important issue.



The flags of Canada, the Northwest Territories, and De Beers Canada fly at an exploration camp.