

EXECUTIVE SUMMARY

GENERAL INFORMATION AND CONTACTS

De Beers Canada Inc. (De Beers) has been exploring the Victor Mine Extension Project (VMEP or the Project) property since 1987, with the objective of developing a satellite open pit diamond mine on the site to extend the life of the adjacent Victor Mine. De Beers proposes to construct, operate and eventually reclaim a new open pit, the VMEP, at the Project site (Figure ES-1).

Project Name: De Beers Canada Inc.

Proponent: De Beers Canada Inc.

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De Beers is an active member of the community with an office in Timmins that offers residents easily accessible locations to learn about the VMEP. De Beers has engaged First Nation community members. Through meetings and regular communications, De Beers strives to ensure engagement with all members of the local communities. Key stakeholders and Aboriginal groups who are expected to have an interest in the VMEP going forward were identified during the early consultation efforts and can be considered in the following categories:





- Business, organizations and non-governmental organizations.
- · First Nations and aboriginal groups;
- · General public;
- Provincial (Ontario) Government; and
- Federal Government.

The VMEP is anticipated to require completion of a Federal Environmental Assessment (EA), pursuant to the *Canadian Environmental Assessment Act, 2012* (CEAA, 2012). If the Canadian Environmental Assessment Agency (CEA Agency) determines that a Federal EA is required, the Project Description will be used to develop Environmental Impact Statement Guidelines, which defines the scope of the Federal EA required for the project.

In addition to needing to meet Federal EA requirements pursuant to the CEAA, 2012, aspects of the VMEP are anticipated to potentially require completion of Provincial EA process(es) to meet the requirements of the Ontario *Environmental Assessment Act*. Should it be determined that a Provincial EA is required, It is fully expected that the same body of information will be use to inform both the Provincial and Federal EA processes, culminating in a single EA report that meets both the federal Environmental Impact Statement Guidelines and the provincial requirements. Where possible, consultation activities for both processes will be coordinated, but nonetheless, the comments gathered during all consultation activities will be used to inform both EA processes. After the EA processes are completed, environmental approvals will be required to construct, operate and close the VMEP.

PROJECT INFORMATION

The majority shareholder of De Beers is Anglo American PLC, and De Beers proposes to develop and operate the VMEP in order to extend the life of the Victor Mine and produce diamonds for sale. There is a local and regional need in northern Ontario for economic development. The VMEP will have a significant economic influence on the region providing construction and permanent employment opportunities.

The federal *Regulation Designating Physical Activities* identifies the physical activities that constitute the designated projects that could require completion of a Federal EA. The following section may apply to the VMEP:

• Section 8: "The construction, operation, decommissioning and abandonment of a facility for the extraction of 200,000 m³/a or more of ground water,...."

By this definition, according to CEAA 2012, this Project Description should only relate to the extraction of the water. However, as the dewatering in excess of 200,000 cubic metres per year (m³/a) is a required component of the VMEP, the VMEP cannot not proceed without it.





Therefore, to provide more complete environmental context, this Project Description discusses the VMEP and all related activities, and not solely the dewatering aspect (which is the designated project).

There will be of necessity, some new infrastructure and facilities constructed specifically for the VMEP (Figure ES-2). Should the Project proceed as planned, the VMEP will however, preferentially use of much of the existing infrastructure and facilities at the Victor Mine (Figure ES-3), and the existing regional infrastructure.

The main, existing Victor Mine facilities that will be part of the VMEP are:

- Processing plant;
- Maintenance shop, warehouse and administration complex;
- Accommodations complexes;
- Explosives manufacturing and storage facilities (with potential for relocation or development of a spur road for new access);
- Local access roads and pipelines, power infrastructure and fuel storage facilities;
- Fine processed kimberlite storage in the Victor open pit or at existing fine processed kimberlite containment facility (as currently approved or expanded);
- Coarse processed kimberlite storage;
- Domestic and industrial waste handling;
- Water treatment and management facilities;
- Winter road between Attawapiskat and Victor Mine
- Regional transmission line; and
- All-season airstrip.

All of the Victor Mine components were approved through a previous Federal EA process and have been operating in compliance with the federal requirements. These listed components are currently, and are planned to continue to be, under the care and control of De Beers, with the exception of existing regional infrastructure.

New physical works that will be part of the VMEP are:

- Open pit: approximately 36 hectare (ha) surface area and 200 metres (m) in depth.
 Mining is proposed to occur at a rate increasing to approximately 3 million tonnes per
 year of ore extracted, with a mine life of up to approximately 7 years.
- Mineral waste stockpile(s): approximately 8,400,000 cubic metres (m³) of overburden and peat, and 9,100,000 m³ of mine rock will potentially be stored in surface stockpiles. The mine rock may also be placed in the existing Victor open pit, in combination with the





fine processed kimberlite (crushed rock slurry, no reagents), in order to minimize in the groundwater inflow that is higher in salinity, and ameliorating the final closure scenario.

- Crusher, conveyor and existing processing plant: ore will be processed onsite to produce raw diamonds for sale.
- Storage of approximately 9,100,000 m³ of coarse and fine processed kimberlite at the Victor Mine, in the existing open pit, or storage in a proposed expansion of the existing Victor Mine Fine Processed Kimberlite Containment facility and/or coarse processed kimberlite stockpile.
- Local distribution line: power for later construction and operations phases of the VMEP is proposed to be supplied by a 13.8 kilovolt (kV) distribution line connected to the existing electrical grid structure of the Victor Mine, which is connected to the regional transmission line system.
- Associated buildings, facilities and infrastructure: additional permanent facilities currently
 planned for the VMEP are expected to include a small maintenance garage, warehouse
 and administration complex, access roads, infrastructure corridor (pipeline, conveyor)
 and twinning (and eventual replacement) of a 13.8 kV distribution line (on lease).
- Detailed design studies may require the relocation of some or all of the explosives manufacturing and storage facilities to the east side of the road to the water intake, or potentially the development of a short spur access road parallel to the existing road to maintain access.

The new facilities listed above, will all be under the care and control of De Beers.

The VMEP and existing Victor Mine facilities are located within mineral leases P1052190, P1246006, CLM435,CLM436, CLM437 CLM445, CLM446 CLM455, and mining claims 1241227,1241228, 1241229, 1241231, and 4212583 (Figure ES-2); with the exception of the winter road / transmission line right-of-way from Attawapiskat to Victor Mine which are located primarily on Crown land.

Primary construction phase activities will include:

- Completion of engineering studies and environmental approvals processes;
- Procurement and movement of construction materials to identified laydown areas;
- Initiation of open pit mine development;





- Preparation of onsite mineral waste handling facilities, including FPKC management area dams if applicable;
- Establishment of water management works;
- Construction / assembly of associated buildings and facilities;
- Construction and energizing of a 13.8 kV distribution line.

Activities that will be carried out during the operations phase are anticipated to include:

- Peat, overburden, ore and mine rock extraction and management;
- Ore processing at the Victor Mine processing plant;
- Mineral waste management (stockpiling or FPK management area)
- Ongoing environmental management; and
- Progressive site reclamation where practical.

Decommissioning phase activities will consist of the closure and reclamation of the various project components. Ongoing environmental monitoring and site management will occur as needed after decommissioning activities are completed.

KEY ENVIRONMENTAL ASPECTS

Air emissions will derive from point source and fugitive sources, with fugitive sources (dust) likely to contribute the majority of the air emissions. The primary point source air emissions are expected to be particulate (dust) from the conveyors and crusher(s). Measures will be taken to minimize dust creation at the plant site and to utilize dust collection / suppression devices where practical. Greenhouse gas emissions will derive principally from diesel fuel combustion in heavy equipment operation. Onsite greenhouse gas emissions will be minimized by utilizing the regional transmission line and a new local distribution line as the primary power supply source.

The principal anthropogenic noise sources at the Project site are expected to derive from open air, heavy equipment operation. Plant site operations including crushing and grinding operations will be enclosed and associated noise emissions are expected to be minor in comparison to open air noise sources. Noise source modelling will be carried out to ensure that noise and noise-related effects are fully considered during engineering design such that regulatory requirements are met.

The dewatering of the proposed open pit will occur through means of a dewatering wellfield. Runoff and precipitation, in addition to the pit wellfield water will report to a pond, or series of ponds on surface, for settling of solids, prior to discharge to the Attawapiskat River.





Fine processed kimberlite will be the end product of the processing of diamond bearing rock at the existing Victor Mine processing plant. The processing of kimberlite does not require chemicals, and no material changes to the Victor processing plant are expected. The resultant kimberlite waste slurry will be deposited in to the existing Victor open pit, or the Victor Fine Processed Kimberlite Containment facility (potentially requiring expansion) This facility will provide retention and holding capacity to ensure that effluent quality meets applicable regulations prior to discharge. Coarse processed kimberlite also arising from the processing will be re-used as aggregate or stored on the Victor Mine site.

Other solid and liquid wastes produced during the construction and operations phase will be handled and treated on the Victor Mine site as appropriate (such as sewage treatment plant), or transported offsite (such as for the limited quantities of hazardous wastes) for handling, treatment and/or storage according to applicable regulatory requirements.

A preliminary schedule for the development of the VMEP has the construction phase commencing after completion the Federal (and potential Provincial) EA process(es), which is currently planned for as early as 2016. The operation and production phase are planned to start in 2018 and continue for a seven year mine life. Closure and decommissioning is therefore anticipated to begin in 2025 at the earliest.

A significant amount of work will be required over a relatively short period of time to complete Project feasibility and engineering studies, and to obtain the necessary environmental approvals, in order to commence mine construction as early as 2016 and initiate mine production in 2018 (assuming all Project approvals are obtained). The construction phase will commence with the stripping of peat and overburden from the open pit footprint. This can only be effectively be undertaken during the colder months, which is a significant factor for the project schedule.

PROJECT LOCATION INFORMATION

The VMEP is located in Unorganized Township, District of Kenora, approximately 100 kilometres (km) west of Attawapiskat, Ontario (Figure ES-1). The Universal Transverse Mercator coordinates for the centroid of the proposed open pit are 300934E, 5861863N (NAD 83 Zone 17). The latitude / longitude (degrees - minutes - seconds) for the Project are 83° 57' 27.7" W, 52° 52' 10.6" N (decimal degrees: -83.9577, 52.8696). The VMEP site and surrounding lands are dominantly held by De Beers which holds a very large land package.

The VMEP site is located in an undeveloped area, with the exception of Victor Mine facilities. Figure ES-2 shows the VMEP in relation to the existing site features. The area exhibits flat, pervasive muskeg terrain, and is drained principally by the Attawapiskat River and its associated tributaries. Adjacent areas show mainly fen and bog wetlands.





FEDERAL INVOLVEMENT

There is no proposed or anticipated federal funding associated with the Project and no facilities or activities are proposed on federal lands, including First Nation Reserves.

It is believed that the VMEP will require completion of an EA pursuant to the CEAA, 2012. Federal approval expected to be required for the construction, operation and decommissioning of the VMEP may include Authorization(s) under the *Fisheries Act* depending upon impending legislative changes.

ENVIRONMENTAL EFFECTS

Lands in the immediate and regional area of the Project site are flat, with pervasive muskeg terrain. Local drainage systems are characterized by numerous ribbed fens, shallow ponds, bogs and domed bogs, draining to the Attawapiskat River. Area creeks are small and frequently intermittent in nature. Surface water quality in the area is generally quite good, typically meeting Provincial Water Quality Objectives and Canadian Environmental Quality Guidelines for the protection of aquatic life with the exception of iron, phosphorus and pH.

Studies of fisheries and aquatic resources included habitat assessments and fishing efforts in September 2012, and focused on the unnamed tributary system and surrounding muskeg ponds. One small adult Pike and three adult Brook Trout were found in the unnamed tributary north of the Project site. Brook Stickleback were found in seventeen of the 25 ponds in the project vicinity. No game fish or sustenance fish were found.

Some aquatic species may be affected by Project activities due to overprinting of minor waterbodies by proposed site facilities, reductions in flow or diversion to avoid site facilities. Watercourses in the vicinity of the open pit may have the potential to have reduced flows as a result of pit dewatering during operations.

Only one aquatic Species at Risk has been identified in the VMEP region to date. Lake Sturgeon were captured during the late summer/early fall of 2011 using gill net and trap nets set in the lower Nayshkootayaow River confluence of the Attawapiskat River. This is quite distant from the VMEP site, and neither the Nayshkootayaow River nor Attawapiskat River are expected to be significantly affected by the project.

As a result of VMEP open pit dewatering discharge to the Attawapiskat River, there may be impacts to the Attawapiskat River water quality and flow. However, these impacts, after implementation of mitigation methods such as those used for the Victor Mine, are anticipated to be minor.





The mine site and related infrastructure development will displace existing terrestrial habitat, stunted forests and wetlands. Limited effects on large predators and furbearers are expected. Disturbance to migratory birds including Species at Risk, may be mitigated by the fact that there is abundant existing suitable habitat nearby.

A total of 13 Species at Risk are known to occur in the regional area. Of these, three species are listed provincially as Threatened, resulting in a potential requirement for a provincial Species at Risk Permit pursuant to requirements of the *Endangered Species Act*, if the proposed Project activities are likely to harm the species in question or its habitat. There are no federal lands within the Project footprint and therefore, federal Species at Risk Permits will not be required.

No provincially listed avian Species at Risk were observed at VMEP during recent field investigations (2012). The only federally listed SAR observed was Rusty Blackbird (the habitat for which is common throughout the VMEP area), considered as Special Concern on Schedule 1 of the *Species At Risk Act*.

Caribou have been observed in the region. The development of the VMEP will not displace sufficient undeveloped lands to negatively impact this species according to the Recovery Strategy for Woodland Caribou (MNR 2008).

As a result of carrying out the project, there are no anticipated changes to the environment which may occur on federal lands, in a province other than Ontario, or outside of Canada. The site does not overlap with any First Nation reserve lands or lands under land claim.

Impacts to aboriginal communities that will be assessed are anticipated to include: potential effects to traditional pursuits and land use; potential effects on health; and potential effect on cultural heritage resources. These impacts (if any) are anticipated to be largely mitigated through: strategic placement of facilities to minimize the VMEP footprint and avoid areas that typically host cultural resources; enforcement of winter road rules to minimize incidents; and provision of harvester compensation due to disturbance / displacement of lands, and associated wildlife and vegetation.

ENGAGEMENT WITH ABORIGINAL GROUPS

De Beers has been actively consulting and engaging with the Attawapiskat First Nation and James Bay First Nations for over a decade. They are actively involving local Aboriginal groups in the project planning and through consultation related to the Victor Mine. De Beers has signed Impact Benefit Agreements (IBA) with a number of the local First Nations to set protocols and commitments for ongoing involvement for the life of the Victor Mine and any future developments, such as the VMEP. Community benefits would, in part, help mitigate any potential effects to Aboriginal or Treaty rights.





Key issues and interests raised by Aboriginal groups to date are related to: general project understanding, employment, trapping, IBA aspects, Project components and mining.

The VMEP is located on traditional lands of the Attawapiskat First Nation, and is endeavouring to engage its partner First Nations in the collection and documentation of Traditional Knowledge and Traditional Land Use, to supplement the data that was obtained in support of the development and approval of the adjacent Victor Mine. The company feels that it is important to ensure that any Traditional Land Use be properly documented and used respectfully to avoid, or limit potential effects.

CONSULTATION WITH THE PUBLIC AND OTHER PARTIES

De Beers believes that in order to be successful it needs to effectively engage the local communities. Parties involved to date in the VMEP include those with a direct interest in the Project, or those who were or will be able to provide data for baseline environmental reports. As a result of the very remote nature of the VMEP the list of parties involved are primarily First Nations and government agencies as follows:

Federal Government:

- Aboriginal Affairs and Northern Development Canada;
- Canadian Environmental Assessment Agency;
- Environment Canada;
- Fisheries and Oceans Canada:
- Health Canada;
- Natural Resources Canada; and
- Transport Canada;

Provincial (Ontario) Government:

- Ministry of Tourism, Culture and Sports;
- Ministry of Aboriginal Affairs;
- Ministry of Economic Development and Trade;
- Ministry of Energy;
- Ministry of Labour;
- Ministry of Natural Resources:
- Ministry of Northern Development and Mines;
- Ministry of the Environment;
- Ministry of Transportation;
- · Ministry of Training, Colleges and Universities
- Hydro One Networks Inc.; and
- Ontario Provincial Police:





Municipal Government:

- City of Timmins;
- Town of Cochrane; and
- Town of Moosonee:

First Nations and Aboriginal groups:

- Attawapiskat First Nation;
- Kashechewan First Nation;
- Fort Albany First Nation;
- Moose Cree First Nation;
- Weenusk First Nation (Peawanuk);
- Taykwa Tagamou First Nation (New Post);
- Marten Falls First Nation (Ogoki Post);
- Neskantanga FN (Lansdowne House);
- Webequie First Nation;
- Nishnawbe Aski Nation;
- · Mushkegowuk Council of the James Bay Cree;

Business, organizations and non-governmental organizations:

- Ontario Federation of Anglers and Hunters;
- Attawapiskat Resources Inc.;
- Keewaytinok Askee Enterprises (Attawapiskat);
- Bradley Young Consulting (Attawapiskat);
- Roger Nakogee Rentals & Construction (Attawapiskat);
- Kattawapiskak Development Co. Inc. (Attawapiskat);
- Koostachin Group (Attawapiskat);
- K A Joint Venture (Attawapiskat);
- Shu-Pae Stayo Enterprises (Attawapiskat);
- Joseph Fireman Ontario 190552620 (Attawapiskat);
- Masowatch Partnership Ontario 1779522 (Attawapiskat);
- Koostachin-Cecconli Joint Venture (Attawapiskat);
- ASWM Contracting Inc. (Attawapiskat);
- Meenish Enterprises (Attawapiskat);
- Tundra Hawk Rentals (Attawapiskat);
- Neegan Naynowan Jacques Whitford LP (Attawapiskat);
- ORTECH Consulting Inc. (Attawapiskat);
- Northern College;
- Timmins and District Chamber of Commerce;
- Mining Watch Canada;
- Northwatch;





- Wildlife Conservation Society; and
- Other local small business owners;

and the general public.

De Beers has and will inform and involved the public and stakeholders in a variety of ways. The focus consultation will be to inform citizens of the status of the exploration and mining-related activities and to provide information regarding future consultation opportunities. Consultation activities are now focused on gathering input for the Provincial and Federal EAs, and engaging stakeholders in the baseline data collection as appropriate.







