

censé intégrer une approche minière «FutureSmart» qui suit un ensemble de principes clés qui minimiseront les impacts environnementaux et permettant l'exploitation de kimberlites (formations rocheuses diamantifères) relativement petites. Les principes clés de «FutureSmart» sont les suivants: •Énergie faible en carbone •Empreinte modeste •Consommation d'eau minimale •Infrastructures modulaires, automatisées, fiables et connectées •Surveillance à distance •Modèle d'exploitation moderne axé sur les employé(e)s

De Beers est actuellement en voie d'achever l'étude de préfaisabilité pour soutenir le Projet. À ce stade de l'étude, nous évaluons un ensemble d'options dans chaque domaine clé du Projet, notamment l'exploitation minière, l'infrastructure, le traitement, la technologie de l'information, la logistique et les modèles de travail des employé(e)s. On s'attend à ce que l'option privilégiée dans chaque domaine clé soit identifiée au cours de la prochaine phase. Des options alternatives peuvent continuer à être envisagées dans certains domaines si des études supplémentaires sont nécessaires avant une décision finale. L'achèvement de l'étude de préfaisabilité est prévu en 2023. Les études de faisabilité sur les options sélectionnées commenceront par la suite, et un résumé des alternatives sera préparé. De Beers mènera également des études préliminaires en vue d'alimenter une évaluation des impacts qui sera soumise à la Commission du Nunavut chargée de l'examen des répercussions (CNER). Contrairement à d'autres projets qui ont commencé leurs études de base sur l'environnement au stade de la faisabilité, ce projet a commencé les études de base sur l'environnement très tôt et dispose déjà de 13 ans de données de base sur l'environnement dans la région. Le Projet présente plusieurs défis importants, chacun d'entre eux offrant une opportunité d'innovation. Les kimberlites dans le réseau de Chidliak sont très petites comparativement à celles qui sont exploitées ailleurs à l'aide de méthodes d'extraction conventionnelles. Le climat nordique extrême et l'emplacement éloigné de Chidliak représentent également un défi. Cet défi logistique est compliqué par le manque d'infrastructures comme des routes ou un réseau de distribution d'électricité dans la région. En outre, la population humaine sur l'île de Baffin est très petite et largement dispersée, ce qui complique la dotation en ressources pour une éventuelle mine. De Beers voit ces défis comme des opportunités d'innovation et la raison de trouver des solutions créatives, à faible coût et à faible impact. De même, en présentant cette proposition de projet tôt dans le processus de planification et en fournissant un éventail complet d'options, De Beers sollicite la contribution de la collectivité en vue de cerner toute synergie technique et toute possibilité de collaboration régionale avec les communautés d'accueil, le gouvernement territorial, le gouvernement fédéral, les entreprises locales et les organisations/entreprises inuites. À ce stade du processus de planification, la mine est envisagée comme une série de puits longues et étroites ou de mines souterraines de taille relativement modeste, probablement exploités en séquence. Chaque groupe aurait un amas adjacent de roches et une zone de kimberlite traitée avec infrastructures connexes. Il est voulu que l'usine de traitement prenne la forme d'installations mobiles et modulaires pouvant être déplacées d'un groupe de kimberlites à un autre selon les besoins. On prévoit également un campement petit et modulaire, où logeraient uniquement les membres du personnel devant se trouver sur place pour s'acquitter de leurs tâches. Des employé(e)s de soutien additionnels travailleront hors site et pourraient commander des équipements à distance. De Beers étudie divers systèmes d'énergie faible en carbone – diesel synthétique, microréacteurs, hydroélectricité, énergie éolienne et solaire – en vue d'un déploiement sur place. Cependant, pour réaliser cette vision, de nombreuses conditions doivent être réunies. Le site doit être soutenu par une ligne satellite ou à fibre optique adéquate pour assurer une bonne connectivité. Les technologies minières doivent être suffisamment développées pour réduire au minimum les stériles et exploiter efficacement la kimberlite. Surtout, les citoyens du Nunavut doivent voir la valeur du projet et agir comme des partenaires dans le développement de cette mine «FutureSmart». De Beers a fourni dans le présent document une proposition de projet aux fins d'analyse par la Commission d'aménagement du Nunavut (CAN) et la CNER. De Beers collaborera avec la CNER afin d'établir la portée et les lignes directrices visant l'évaluation au cours de l'année 2022. Il est entendu que la proposition de projet sera retravaillée ultérieurement, une fois l'étude de préfaisabilité achevée, et qu'une description de projet détaillée sera transmise à ce moment à la CNER dans le cadre de l'évaluation des impacts.

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pipkagauniaqniganik talvuuna ihumagiyauyukhamik Nunavumi Avatiliqiyinit Katimayinit
ilagiyaanik Aktuqnigagut Ilituqhaunmi.

Personnel

Personnel on site: 300

Days on site: 365

Total Person days: 109500

Operations Phase: from 2026-03-24 to 2029-12-24

Operations Phase: from 2029-12-25 to 2045-12-23

Closure Phase: from 2045-12-24 to 2047-12-24

Post-Closure Phase: from 2047-12-25 to 2049-12-24

			currently on site, however landfills will be required as part of the Chidliak Project.	studies will be utilized to support the Project Impact Assessment	Pangnirtung, is located 200 km to the North of the Project
Chidliak Leases	Quarry/Borrow pit	Crown	The main lease block includes temporary structures only. Quarries and borrow pits will be required to support construction of additional infrastructure including site roads and pads.	Extensive archaeological studies have been conducted throughout the Project area. These studies will be utilized to support the Project Impact Assessment.	The nearest community is Iqaluit, located 120km to the southwest. Pangnirtung, is located 200 km to the North of the Project
Chidliak Leases	Site Cleanup/Remediation	Crown	The main lease block includes some physical disturbance including three camps, drill sites, sumps and other associated infrastructure. Remediation activities will proceed following completion of the Project.	Extensive archaeological studies have been conducted throughout the Project area. These studies will be utilized to support the Project Impact Assessment.	The nearest community is Iqaluit, located 120km to the southwest. Pangnirtung, is located 200 km to the North of the Project
Chidliak Leases	Airstrip use or construction	Crown	The main lease block includes an unimproved landing strip. An airstrip with apron, sump, and associated infrastructure will be constructed to facilitate passenger and cargo air travel to site. A landing pad for airships may also be constructed at site and in Iqaluit.	Extensive archaeological studies have been conducted throughout the Project area. These studies will be utilized to support the Project Impact Assessment.	The nearest community is Iqaluit, located 120km to the southwest. Pangnirtung, is located 200 km to the North of the Project.
Chidliak Leases	Advanced Mineral Exploration	Crown	The Project is authorized for advanced mineral exploration under LUP #2018C0002. Exploration, drilling, trenching, bulk sample collection, and associated activities will continue as part of the Project.	Extensive archaeological studies have been conducted throughout the Project area. These studies will be utilized to support the Project Impact Assessment.	The nearest community is Iqaluit, located 120km to the southwest. Pangnirtung, is located 200 km to the North of the Project.
Chidliak Leases	Aerial surveys	Crown	Aerial surveys have been conducted to gather environmental baseline data to date. Various aerial surveys	Extensive archaeological studies have been conducted throughout the	The nearest community is Iqaluit, located 120km to the

			will continue to be conducted as part of the baseline data collection and planned monitoring Programs.	Project area. These studies will be utilized to support the Project Impact Assessment.	southwest. Pangnirtung, is located 200 km to the North of the Project.
Potential Winter Trail Route to Chidliak	Access Road	Crown	Access to the site has occurred periodically via a winter trail. The Project will include use of a winter trail from Iqaluit to the site to transport cargo. The specific alignment of the winter trail is yet to be determined.	Extensive archaeological studies have been conducted throughout the Project area. These studies will be utilized to support the Project Impact Assessment.	The nearest community is Iqaluit, located 120km to the southwest. Pangnirtung, is located 200 km to the North of the Project
Potential Transmission Line to Chidliak	Other	Crown	There is currently no hydro-electric transmission to the site. The Project may include an electric transmission line from a power plant located closer to Iqaluit to the site.	Extensive archaeological studies have been conducted throughout the Project area. These studies will be utilized to support the Project Impact Assessment.	The nearest community is Iqaluit, located 120km to the southwest. Pangnirtung, is located 200 km to the North of the Project.
Chidliak Leases	Other	Crown	The site has operated as an advanced exploration site. As part of the Project an energy source will be required. This may include conventional diesel or alternative, and or solar panels, wind turbines, micro-nuclear reactor, hydrogen fuel cells or hydroelectricity.	Extensive archaeological studies have been conducted throughout the Project area. These studies will be utilized to support the Project Impact Assessment.	The nearest community is Iqaluit, located 120km to the southwest. Pangnirtung, is located 200 km to the North of the Project
Chidliak Leases	Mine Development/Bulk Sampling	Crown	The site operates as an advanced exploration site. As part of the Project it will be transformed into a Diamond Mine. Facilities may include a process plant, processed kimberlite storage facilities, mine rock storage facilities, backfilled pits, dykes and berms, water storage ponds and	Extensive archaeological studies have been conducted throughout the Project area. These studies will be utilized to support the Project Impact Assessment.	The nearest community is Iqaluit, located 120km to the southwest. Pangnirtung, is located 200 km to the North of the Project.

	organizations and individuals regarding the Project. Key organizations include the Hamlet of Pagnirtung, Pagnirtung HTO, GN - ED&T, Pagnirtung Working Group, Pagnirtung Health Centre, QIA-CLARC, employees and others	Appendix A to the Project Proposal	
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						including propylene glycol and ethylene glycol, may also be utilized. Material Data Sheets will be maintained for all chemicals stored on site. No. Containers and volumes of each expected is TBD.
Small modular nuclear reactor	hazardous	1	10	10	Lbs	A small or micro modular nuclear reactor is under consideration for use at the Project. Nuclear waste associated with the reactor would be transported off site for disposal at an approved facility. No. Containers and capacity are not yet determined.
Diesel	fuel	20	500	10000	Liters	Re-fueling mobile and fixed equipment
Diesel	fuel	10	50000	500000	Liters	refueling mobile and fixed equipment
Diesel	fuel	2	12000000	24000000	Liters	Mobile and non-mobile equipment
Gasoline	fuel	10	500	5000	Liters	Fueling snowmobiles, boats, other small craft
Aviation fuel	fuel	3	10000	30000	Liters	re-fueling aircraft
Diesel	fuel	200	208	41600	Liters	storage for remote field programs

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10000	The daily amount has not yet been determined. Water for industrial use will be re-cycled to the extent possible and water for domestic use will be treated and discharged.	Qamaniruluk Y Lake, Qamanialuk [McKeand] Lake, Sunrise Lake, Glacier Lake, McKeand River, and other water bodies

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

De Beers Canada Inc. (De Beers) is seeking to build a diamond mine at the Chidliak exploration site on the Hall Peninsula of Baffin Island. The Project is envisioned to incorporate a FutureSmart Mining approach which adheres to a set of key principles that will minimize environmental impacts and enable relatively small kimberlites (diamond bearing rock formations) to be mined.

SECTION B2: Exploration Activity

Exploration in the Project area has been focused on a cluster of kimberlite bodies referred to as the Chidliak kimberlite field. The field consists of 74 kimberlites (the type of rock known to often contain diamonds) within an 80km by 60km area. The first kimberlite was discovered in 2008 and the most recent kimberlite to be discovered was in 2014. The kimberlites in this region are generally small in size (average <1 ha) and can be found both at surface and sub-surface. In 2019, 39 of these 74 kimberlites were surrendered to the Nunavut Mining Recorder and 35 were kept within the Project mining leases. De Beers maintains 41 mining leases with an area of approximately 42,000 hectares in the Project area. Exploration will continue as part of the Project.

SECTION B3: Geosciences

SECTION B4: Drilling

Drilling to delineate the kimberlite resources is anticipated to continue as part of the Project.

SECTION B5: Stripping

Stripping of overburden will be required to access the ore

SECTION B6: Underground Activity

Kimberlite ore bodies are likely to be mined using underground techniques.

SECTION B7: Waste Rock

Waste Rock will be generated as a waste product of mining

SECTION B8: Stockpiles

Stockpiles of kimberlite to be processed will be maintained.

SECTION B9: Mine Development

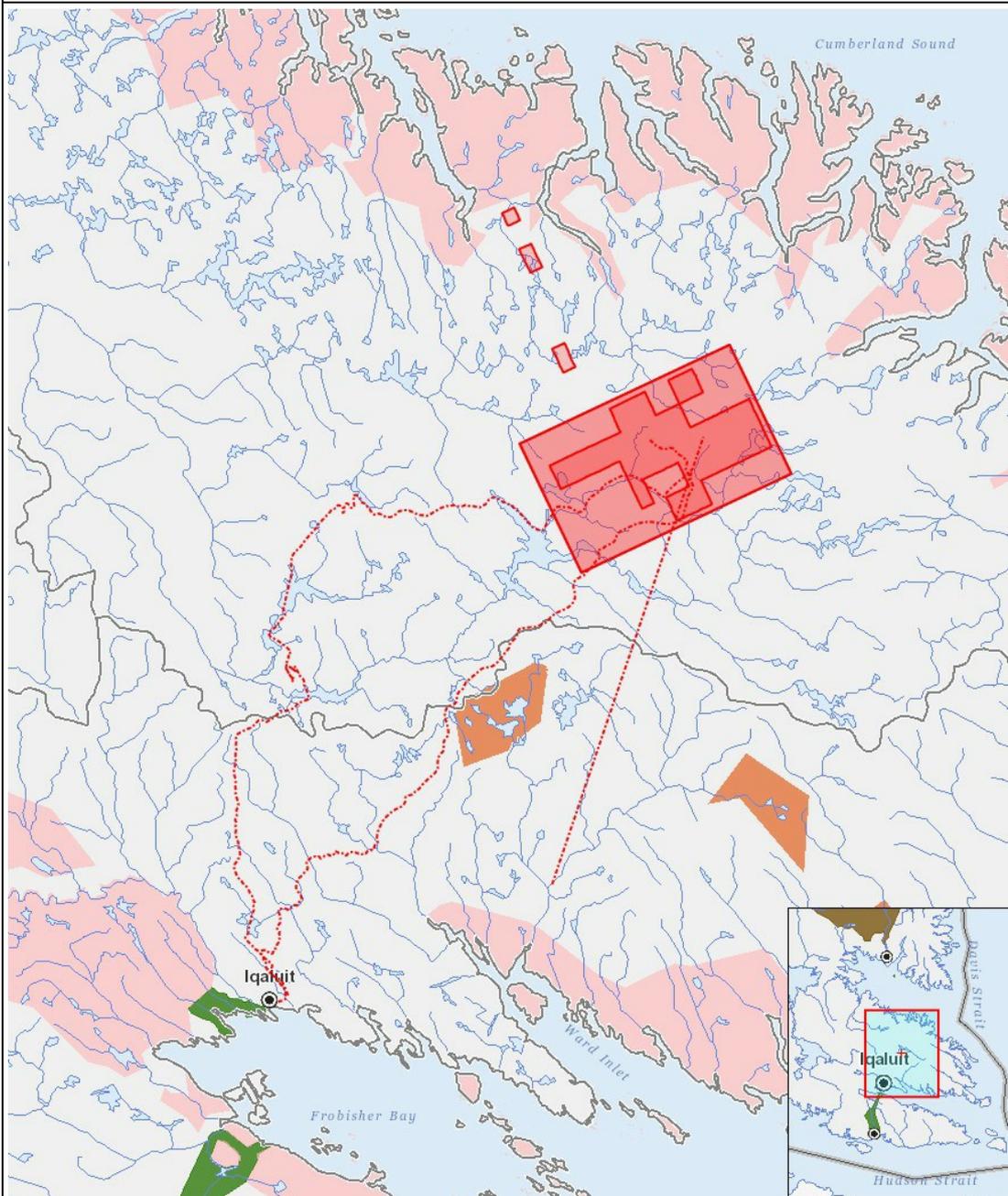
Waste rock and processed kimberlite facilities will be constructed and maintained.

SECTION B10: Geology

the local communities and with Fisheries and Oceans Canada. • Complete archaeological surveys of the footprint area. • Avoid or preserve archaeological and/or heritage materials discovered during mine activities. • Minimize land disturbance and potential for effects on permafrost. • Water roads, airstrip, and laydown areas to suppress dust as required. • Enforce speed limits (to reduce dust and vehicle emissions). • Use of low-sulphur diesel or alternative energy sources for vehicles. • Alternative primary power generation. • seek to use autonomous vehicles. • Monitor noise, air quality, water quality, soil quality, wildlife against standards and adaptively manage.

Cumulative Effects

There is very little regional development on Hall Peninsula. Most development is in the immediate vicinity of Iqaluit. De Beers may also require infrastructure in Iqaluit such as housing, equipment and fuel storage, logistics and transport including air shipments and some use of the port mainly during construction. Cumulative Effects of this Project, together with existing developments and potential future developments will be considered as part of the Impact Assessment.



List of Project Geometries

1	polygon	Chidliak Leases
2	polygon	Chidliak Local Study Area
3	polygon	Chidliak Local Study Area
4	polyline	Potential All Weather Access Road to Chidliak
5	polyline	Potential Transmission Line to Chidliak
6	polyline	Potential Winter Trail Route to Chidliak