



New

Mineral Exploration

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ᐃᐱᐱᐅᑦ: Description sommaire de la campagne de forage Turquetil — Esker 2021-2022 Ce programme de travail proposé consiste en des opérations de forage hélicoptérées menées par MPH Consulting Limited sur le territoire visé par l'AEM Huckleberry-0002 du gisement aurifère de Turquetil et de la concession existante F46702 de la venue aurifère d'Esger. Le programme de forage sera mené depuis le camp minier du lac Henik de la compagnie Eskimo Point Lumber Supply/Airport Services Ltd., où seront hébergés le personnel et un hélicoptère (voir la Carte de localisation générale). Les deux zones ont fait l'objet de plusieurs campagnes de forage dans le passé, notamment en 1993 à Turquetil et en 2004 à Esger. Des travaux antérieurs ont permis de trouver de l'or en surface et dans le sous-sol grâce à des forages. Le programme proposé vise à confirmer et à exploiter, si possible, les zones de minéralisation aurifère identifiées.

Zones des opérations 2021-2022 (voir la Carte de localisation détaillée des opérations de forage) : M. John Tugak, résident d'Arviat, a conclu un accord d'exploration minérale (« AEM ») avec la Nunavut Tunngavik inc. (« NTI ») concernant la propriété aurifère de Turquetil Lake (accord Huckleberry-0002), située à 138 km au nord-ouest d'Arviat et à 84 km au nord-est du camp du lac Henik, dans la parcelle AR-16 des terres inuites (IOL).

M. Paul Sobie, président de MPH Consulting Limited, possède une concession minière en suspens (F46702) sur la rive est du South Henik Lake, qui couvre le prospect aurifère d'Esger, situé à 10 km au sud-est du camp du lac Henik dans la parcelle AR-27 des terres inuites (IOL).

Permis d'utilisation des terres en vigueur : Ces deux zones sont visées par le permis d'utilisation des terres KVL120B03 accordé par la KIA pour les levés géophysiques aériens, la prospection et le jalonnement, et en vigueur jusqu'au 29 septembre 2021. Nous présenterons une demande de modification du permis KVL120B03 pour inclure la présente campagne de forage.

Base d'exploitation :Le matériel de forage et de campement, les provisions et le carburant seront transportés au camp Henik depuis Churchill et Thompson. Toutes les exigences en matière d'environnement, d'entreposage de carburant et de protection des caribous du permis KVL120B03 seront respectées en tout temps. MPH et John Tugak veilleront à ce que le plus grand nombre possible de travailleurs inuits locaux soient employés et à ce que les entreprises inuites locales soient utilisées comme ressources pendant les travaux sur le terrain.

La campagne 2021-22 sera soutenue depuis les municipalités de Churchill et de Thompson, au Manitoba, et du camp du lac Henik, évitant ainsi les communautés du Nunavut, à l'exception des vols de ravitaillement hebdomadaires depuis Arviat, qui feront appel à la compagnie locale d'affrètement par appareils à voilure fixe Ookpik Aviation Inc. de Baker Lake au Nunavut. Lorsque les mesures liées à la COVID-19 seront levées à Arviat, une plus grande partie des activités de soutien seront effectuées à partir de cette localité.

Opérations prévues à l'été 2021 (voir les cartes de localisation et d'opérations détaillées de Turquetil et d'Esger) : Une cache à carburant temporaire et un refuge d'urgence mobile en cas de mauvais temps, seront aménagés sur chaque emplacement de forage pendant les opérations. La campagne de prospection de 2021 devrait commencer à Turquetil pendant environ un mois, du 15 juillet au 15 août, avant d'être réorientée au site d'Esger entre le 15 août et le 15 septembre 2021.

Opérations au printemps et à l'été 2022 :Les activités de 2022 devraient comprendre des forages supplémentaires au moyen d'un maximum de deux appareils de forage et des levés géophysiques au sol dans les zones opérationnelles désignées. Les opérations sur les deux sites se veulent la suite du travail accompli durant l'été 2021. Les activités ne reprendront pas avant le 1er mars 2022 et seront interrompues le 1er mai pour la période de mise bas des caribous dans les aires de mise bas conformément au permis

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Post-Closure Phase: from 2023-06-30 to 2023-07-01

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Turquetil Drilling Operations Area	Drilling	Inuit Owned Sub-Surface Lands	Site was drilled in 1976, 1978, 1988 and 1993.	unknown but will contact Prince of Wales Nunavut Archeological office for any information they have for the site.	Site is 140km northwest of Arviat. Site is approximately 30km from Qamanirjuaq CPMA.
Esker Drilling Operations Area	Drilling	Inuit Owned Surface Lands	Site was previously drilled in 1997, 2002 and 2004.	Unknown but will contact Prince of Wales Archeological office for any information they have for the site.	Site is 187km northwest of Arviat. Site is approximately 100km from Qamanirjuaq CPMA.

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Project transportation types

Transportation Type	Transportation Mode	Length of Use
Air	helicopter for operations, fixed wing for support	

Project accomodation types

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Λ⁹δ^c Δ⁹ρ²Δ⁹ Δ⁹CDσ⁹Δ⁹Δ⁹ Δ⁹Δ⁹ρ⁹Δ⁹ Δ⁹Δ⁹Δ⁹, Γ⁹Δ⁹Δ⁹Δ⁹, Δ⁹Δ⁹Δ⁹Δ⁹, Δ⁹Δ⁹Δ⁹Δ⁹Δ⁹

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Drill	1	4799 lbs	One helicopter-portable Multi-Power Discovery 1 drill rig supplied and operated by Foraco International SA (Kelowna Branch)
AStar350 B2 Helicopter	1	11m	Will be used to move the drill from site to site, as well crew shifts from Henik Lake Camp

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Aviation fuel	fuel	225	45	10125	Gallons	Helicopter Fuel
Diesel	fuel	90	45	4050	Gallons	Drilling fuel
none	hazardous	0	0	0	Kg	n/a
Propane	fuel	30	100	3000	Lbs	Drill rig use

$$\Delta L^{\epsilon_b} \quad \triangleleft \triangleright^{\epsilon_b} C \triangleright \triangleleft \dot{L}^{\epsilon_b} \triangleright^{\epsilon_b}$$

$\Delta^c \rightarrow C\dot{L}^{qb} \Delta^{qb}C\Delta\sigma\Delta^{qb}\Delta^{qb}$	$^{qb}\omega^{qb} \Delta\Gamma^{qb}C^{qb}C^q\sigma\Delta^{qb}<^c$	$aP^c \Delta\Gamma^{qb}C^{qb}C^q\sigma\Delta^{qb}<^c$
40	temporary water pump	un-named lakes - see detailed operations figures for Turquetil and Esker

$\triangleleft^b C d^c$
$$\Delta^b C j_c \sim \sigma \Delta^q \sigma^q$$
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Minimal environmental impacts from drilling

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

Provide the number of drill holes and depths (provide estimates and maximums where possible). Approximately 10-20 diamond drill holes. Each hole to a maximum depth of 250 metres. Discuss any drill additives to be used. See MSDS sheets attached. Describe method for dealing with drill cuttings. All drill sludges will be collected in a hand dug collection sump or natural depression located no less than 31 metres from the ordinary high water mark of any water body. These sludges will be allowed to settle. All land based artesian holes (drill holes which produce water after completion) will be documented, plugged and sealed with grout. As virtually 95% of the rock cored is brought to the surface and transported to camp (and then to the laboratory), the volume of drill waste created for a 100 meter long hole is only 0.14 cubic meters. Describe method for dealing with drill water. As above. Describe how drill equipment will be mobilized. The drill will be moved by helicopter between hole locations. All crews will also be shuttled daily between camp and work areas by helicopter. The foot print of each drill pad will be kept to a minimum size of approximately 10 metres by 10 metres. Pad construction will involve the placement of two parallel wooden timbers (6" x 6" x 10-12') onto the ground on which the frame of the drill and shack will be placed. The only ground clearing needed for this type of drill set-up will involve the removal of any larger, protruding boulders by hand. Absorbant matting will be used to collect any oils and lubricants which may be sourced from operating the drill. Drip trays will be used at all fueling and refueling areas. Once drilling at a particular site is completed the timbers will be removed for use at the next drill site. All used absorbant matting, garbage and fuel drums will be backhauled off the property and transported to Arviat and/or Churchill or Thompson, MB to be disposed of in an approved disposal facility. Describe how drill holes will be abandoned. All drill cuttings, water return and sludge will be disposed of in a properly constructed sump or natural depression no closer than 31 metres from the ordinary high water mark of any waterbody. Any drill collars that cannot be removed will be cut to ground level. All garbage and equipment and empty drums will be removed and the area reclaimed to as near as possible its original state.

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

The Turquetil-Esker project is situated in barren lands or tundra along the northern reaches of the tree line and is underlain by permafrost. Relief is moderate, less than 20 metres. Vegetation consists of black spruce, dwarf shrubs, heaths, sedges, grasses, moss and lichens. In areas of better drainage the ground is covered by dwarf birch and willow shrubs however the majority of the property is vegetated by cotton grass tussocks and wet sedge meadows. Overall bedrock exposure is less than 5%, restricted to higher elevations and/or on the edges of the larger lakes. Outcrop surfaces are often ice scoured and not uncommonly polished. Frost-heaved bedrock and shattered sub-crop are common. Flat to undulating muskeg and boulder fields are frequent throughout the property. Continental glaciation has affected the entire region. Glacial deposits vary in thickness and consist of reworked till veneer, ground moraines, and flattened eskers. Glacial transport is generally east-south-east. Landforms, relief and drainage have been strongly influenced by the effects of several periods of glaciation, post-glacial fluvial activity and freeze/thaw processes. The area is generally covered by ice and snow from late September to early July.

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Miscellaneous Project Information

$\Delta^{\circ} \text{CD} \sigma^{\circ} \Gamma^{\circ} \quad \Delta^{\circ} \text{CD} \rho L^{\circ} \quad \Delta^{\circ} \text{CD} \sigma^{\circ} \Gamma^{\circ} \quad \Delta^{\circ} \text{CD} \rho L^{\circ} \quad \Delta^{\circ} \text{CD} \sigma^{\circ} \Gamma^{\circ}$

MPH is fully committed to implementing its proposed exploration project on the Esker/Turquetil property in an environmentally responsible manner to protect and sustain the environmental and cultural resources of the project area. The exploration program described will have no to very low impact to the environment and/or wildlife. The project activities will be short lived (2-3 months) and be of a very localized nature. The drilling component will be short lived as the drills will only be on each site for 3-5 days and all sites will be restored as near as possible to their original state. Noise levels of the drill, generator, water pump, helicopter and supply planes will be the only activities that will be non-mitigatable. Congregations of wildlife are not expected in the area but will be avoided should any be encountered. Permafrost will not be harmed due to the timing of the project. All temporary structures (drill and pumps) will be set on timbers to avoid damage to the permafrost. Eskers and fragile landscapes will be avoided. Water usage will be minimal (~40 cubic metres/day) and restricted to drill use. Drill operations will be conducted in an environmentally friendly manner and fuel caches will be checked daily for potential leakage. Helicopter usage for purposes of supporting drilling operations is and has been the standard practice of many exploration companies now and in the past with no impact to wildlife or the environment. Pilots will be instructed to avoid wildlife during operations. All potential environmental effects associated with this proposed program are minor, localized effects which can be mitigated. No long term impacts to the environment or wildlife are expected to occur as a result of the implementation of this program. Timing of the proposed drilling will be after caribou calving season ends. The small quantities of benign drill cuttings (0.14 m³/ 100 m drilled) generated at each drill site will be deposited in natural depressions or sumps (2 X 3 X 1 meter) and will affect small areas of sparsely vegetated tundra within the footprint of the disturbed area at each drill site. All garbage, fuel drums and equipment will be removed from each drill site. There will be no deleterious effects to water quality due to the protection measures outlined by DIAND and the NWB which includes restrictions as to how close to water bodies the drill, sumps and fuel caches are allowed. Additionally, the following mitigation measures will be undertaken to reduce, control and/or eliminate all together, potential environmental effects.

1. Adhering to the Caribou Protection Measures; specifically not working in any core calving areas.
2. Avoiding low level flights over areas known for waterfowl nesting.
3. Adhering to the Recommended Environmentally Acceptable Minimum Flight Altitudes.
4. Equipping all water intake hoses with an appropriate screen mesh size to ensure no entrapment of fish.
5. Provide necessary controls to prevent sedimentation and/or erosion of water bodies or adjacent land.
6. Using only lake water for drilling operations.
7. All drill cuttings will be disposed of and contained in natural depressions or hand dug sumps located at least 31 meters from any high water mark such that the cuttings do not enter any water bodies. As virtually 95% of the rock cored is brought to the surface and transported to camp (and then to the laboratory), the volume of drill waste created for a 100 meter

long hole is only 0.14 cubic meters.8.All sumps will be backfilled and contoured when operations are complete.9.Only environmentally acceptable and approved muds and additives (as per DIAND regulations) are to be used during drilling operations.10. Drill holes to be plugged and permanently sealed if artesian flow is encountered.11. All fuel caches will be located a minimum of 30 meters from the normal high water mark. Spill kits will be present at all fuel caches and drilling operations.12. MPH possesses and maintains a current Emergency Response Plan including a Fuel Spill Contingency Plan that all employees and contractors are required to adhere to. These policies also include safety, emergency, fire and medi-vac procedures and are described in detail in MPH's Safety Manual/Field Guide.

Cumulative Effects

In total, the residual environmental effects of MPH's entire program on the Esker/Turquetil property are expected to be negligible. No other mineral exploration activities or other industrial development projects are currently known or planned for the area, which eliminates the potential for cumulative environmental effects.All potential environmental effects associated with this proposed program are minor, localized effects that can be mitigated. No significant residual impacts to the environment are expected to occur as a result of the implementation of this program. As a result there are no significant contributions resulting from the project that could be considered to be cumulative. However, while individually no significant effects are anticipated, it is the role of the cumulative environmental effects assessment to consider the additive and synergistic effects of overall residual environmental effects, in combination with all existing or known planned activities within the vicinity of Turquetil-Esker project area.No other mineral exploration activities or other industrial development projects are currently known or planned for the area, which minimizes the potential for cumulative effects. No known environmental issues are known to exist in the project area from historic exploration campaigns. As a result, based on CEAA's premises, the proposed MPH's exploration program on the Turquetil-Esker project is not expected to result in a cumulative effect.

Impacts

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PHYSICAL																			
Designated environmental areas																			
Ground stability																			
Permafrost																			
Hydrology / Limnology																			
Water quality																			
Climate conditions																			
Eskers and other unique or fragile landscapes																			
Surface and bedrock geology																			
Sediment and soil quality																			
Tidal processes and bathymetry																			
Air quality																			
Noise levels																			
BIOLOGICAL																			
Vegetation																			
Wildlife, including habitat and migration patterns																			
Birds, including habitat and migration patterns																			
Aquatic species, incl. habitat and migration/spawning																			
Wildlife protected areas																			
SOCIO - ECONOMIC																			
Archaeological and cultural historic sites																			
Employment																			
Community wellness																			
Community infrastructure																			
Human health																			

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1	polygon	Esker Drilling Operations Area
2	polygon	Turquetil Drilling Operations Area

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|---|---------|------------------------------------|
| 1 | polygon | Esker Drilling Operations Area |
| 2 | polygon | Turquetil Drilling Operations Area |