



NIRB Application for Screening #125865

Epworth

Application Type: New

Project Type: Mineral Exploration

Application Date: 11/20/2023 1:39:30 PM

Period of operation: from 0001-01-01 to 0001-01-01

Proposed Authorization: from 0001-01-01 to 0001-01-01

Project Proponent: Bruce MacLachlan
Emerald Geological Services
222 Emerald St.
Timmins ON P4R 1N3
Canada
Phone Number:: 17052660847, Fax Number::

DETAILS

Non-technical project proposal description

English: The claims are in the name of Bruce MacLachlan, Prospector and President of Emerald Geological Services and in the name of Coleman Robertson, Epworth Project Geologist. The Epworth Project is located in Nunavut, ~500km north of the city of Yellowknife in the Northwest Territories, and ~80 km south-southeast of the town of Kugluktuk. The property is comprised of 440 claim units totaling 6909 hectares. The proposed exploration program will target minerals such as copper, zinc, lead, silver, cobalt and gold. Currently we anticipate that the drilling will be carried out by Great Slave Drilling based in Hay River, NWT. The drill program will be managed and supervised by Emerald Geological Services. Emerald has decades of experience carrying out and managing safe and environmentally responsible exploration programs. The 2024 proposed drill program calls for drilling of 1000-1500 metres of drill core for a total of 10-15 drillholes. If possible, we would like to move ~20 sealed drums of diesel from Kugluktuk to Epworth by Twin Otter and place the drums on land within a containment berm. The drums would be later slung by helicopter to the drill sites. Drillers, pilot, and engineer would be based in Kugluktuk and carry out daily crew changes by helicopter. All drill moves will be carried out by helicopter. Currently we anticipate drilling ~12 holes up to 150 metres each deep. Geological staff would stay in a tent on site, located at a previously used site during the 2022 exploration program, where the logging and core sampling will take place. All fuel drums, garbage, equipment, and shelters will be removed at the end of the program with routine extractions of used fuel drums and garbage being removed over the course of the program. Drill core will remain cross piled on site for future reference. The estimated number of personnel on site at any point in time is 7 people for a total duration of 30 days to complete the drilling program. Water will need to be drawn from a nearby lake by mechanical pumps for the drilling operations as well as for camp use needs. Anticipated water use for drilling is 120m³/day and an additional 5m³/day for personnel and camp use. All grey water and human waste will be buried (anticipated 5 gallons each per day). All drilling cuttings will be captured and placed in natural depressions and covered with soils. The drilling contractor will be using environmentally friendly biodegradable drilling additives including the containers they are shipped in. The proposed timeline for the work to be completed is from 2024-06-01 through 2024-09-30.

French: Les claims sont au nom de Bruce MacLachlan, prospecteur et président d'Emerald Geological Services et au nom de Coleman Robertson, géologue du projet Epworth. Le projet Epworth est situé au Nunavut, à environ 500 km au nord de la ville de Yellowknife dans les Territoires du Nord-Ouest et à environ 80 km au sud-sud-est de la ville de Kugluktuk. La propriété comprend 440 unités de claims totalisant 6 909 hectares. Le programme d'exploration proposé ciblera des minéraux tels que le cuivre, le zinc, le plomb, l'argent, le cobalt et l'or. Actuellement, nous prévoyons que le forage sera effectué par Great Slave Drilling, basée à Hay River, dans les Territoires du Nord-Ouest. Le programme de forage sera géré et supervisé par Emerald Geological Services. Emerald possède des décennies d'expérience dans la réalisation et la gestion de programmes d'exploration sûrs et respectueux de l'environnement. Le programme de forage proposé pour 2024 prévoit le forage de 1 000 à 1 500 mètres de carottes de forage pour un total de 10 à 15 trous de forage. Si possible, nous aimerions déplacer environ 20 fûts scellés de diesel de Kugluktuk à Epworth par Twin Otter et placer les fûts sur terre à l'intérieur d'une berme de confinement. Les fûts seraient ensuite transportés par hélicoptère vers les sites de forage. Les foreurs, les pilotes et les ingénieurs seraient basés à Kugluktuk et effectueraient quotidiennement les changements d'équipage par hélicoptère. Tous les mouvements d'exercice seront effectués par hélicoptère. Actuellement, nous prévoyons de forer environ 12 trous jusqu'à 150 mètres de profondeur chacun. Le personnel géologique resterait dans une tente sur place, située sur un site précédemment utilisé lors du programme d'exploration de 2022, où auront lieu la diagraphie et le carottage. Tous les fûts de combustible, déchets, équipements et abris seront retirés à la fin du programme, les extractions de routine des fûts de combustible usé et des déchets étant enlevés au cours du programme. Les carottes de forage resteront empilées sur place pour référence future. Le nombre estimé de personnel sur place à tout moment est de 7 personnes pour une durée totale de 30 jours pour terminer le programme de forage. L'eau devra être puisée d'un lac voisin au moyen de pompes mécaniques pour les opérations de forage ainsi que pour les besoins du camp. La consommation d'eau prévue pour le forage est de 120 m³/jour et de 5 m³/jour supplémentaires pour le personnel et le camp. Toutes les eaux grises et les déchets humains seront enterrés (prévus 5 gallons chacun par jour). Toutes les déblais de forage

L'entrepreneur en forage utilisera des additifs de forage biodégradables respectueux de l'environnement, y compris les conteneurs dans lesquels ils sont expédiés. Le calendrier proposé pour l'achèvement des travaux est du 2024-06-01 au 2024-09-30.

Inuinnaqtun: Tamna uuktuqtunik atilik Bruce MacLachlan, Uyaraqhiuqtiyuq Angiyuqaanguyuqliq Emerald Geological Services-mi atialu Coleman Robertson, Epworth Havaaqhangit Nunaliqiyi. Tamna Epworth Havaaqhaq nayugaqaqtuq Nunavunmi, ~500nik kilaamitanik tununani nunalipauyam Yalunaimi Nunatsiarmi, unalu ~80 km hivugaani kivatani hivuraani kivatani nunallaap Kugluktumi. Nanminiriyaat piqaqtuq 440nik utirutinik tamainik 6909 hectaresnik. Tamna tukhiqtauhimayuq qiniqhiayukharnik ilihairutikharnik aulaniaqtun uyaraqhiuqtunik taimaitunik coppernik, zincnik, hivuliqtikharnik, silvernik, cobaltnik kuulmiklu. Taja nahuriyaqut ikuutautit tigumiaqtauniaqtut Great Slave-mik Ikuutariagani pijutiqaqtumik Hay River-mi, NWT-mi. Tamna ikuutarnikkut ilihairutikhaq munaqtauniaqtun tutqikhainiaqtunlu tapkuninga Emerald Gerald Nunamiutanik Ikayuutikharnik. Emerald piqaqtuq qulinik ukiunik atuqhimayaminik pihimabluni uvalu munagiblugit qayangnaitumik uvalu avatingnun munaqhittiaqtumik qiniqhianikkut ilihaidjutinik. 2024-mi atulirumayauyuq ikuutariagani havaamik tuukhiqtut ikuutariagani 1000-mit 1500-mut miitamik ikuutariagani ikuutariagani atautimut 10-mit 15-mut ikuutautinik. Piyuminaqqan, nuuttumagupta ~20 nattirmik qattaryungnik Kugluktumit Epworth Twin Otter-mik iliuarlugulu qilaudjat nunami iluani iluani kuvilaiktukharnik. Tamna qattaryuit tipaitniaqtuq halikaaptakkut ikuutarviinun. Drillers, uuktulihaaqtaq, hanajilu tunnganiqaqtuq Kugluktumi tigumiarlunilu ubluq tamaat havaktiit aallanguqtirutinik halikaaptakkut. Tamaita ikuutautit ingutaarutait havaktauniaqtut halikaaptakkut. Tadja naahurijavut ikuutarniq ~12 holes-mik imaatut 150 metres-mik. Nunamiutanik havaktut talvaniiniaqtut tupiqaqviki inikharnik, iniaqtut hivuani atuqtauyumi inigiyauyumi atuqtilugu 2022-mi qiniqhiayit havaami, humi itiqtauvigiluaqlugit naunaiyagakhatlu inikhait. Tamaita urhuquyat qattaryuit, iqqakut, tamayat, qimaaviillu unguvaqtauniaqtut nunguani pinahuarutit atuqpaktait uqhughat qattaryuit iqqakutlu unguvaqtiqtauliqtut ilihaqtaghanit. Ikuutarutit qitqani aulahimaniaqtut ikaarnirmun nayugaini hivungani naunaiyautini. Itqurniarutait qaffiuniit havaktut nayugaani quyaginaq 7nik inungnik attautimun hivituniani 30nik ublunik iniqtiqiangani ikuutangnikkut ilihaidjutit. Imaq tiguyauyukhaq haniani tahiqlun imaa ingniqtukkut papiutit ikuutaqnikkut auladjutit imaalu maniqami atuqtauyut ihaqiaqiyauyut. Niriuktaujuq imaq ikuutariami una 120m³/ubluq

aallamiklu 5m3/ubluq havaktinun tangmaarvingmunlu aturutikhanun. Tamaita imait uvalu inuit iqakut kuviniaqtut (niriugiyauyut 5 gaasit attautini ubluni). Tamaita ikuutautit kibluutait piyauniaqtut uvalu iliugaqlugit idjuhiatigut in'ngumanikkut uvalu halumalugit nunat. Tamna ikuutarnikkut kaantulaangit aturniaqtun avatiliqinikkut ihuaqtumik biodegradenik ikuutagiaqaqtunik ilauyukharnik ilauyut puungit tuyuqtauvakhimayut. Tamna tukhiqtauhimayuq ikaaknikhaq havaaqharnun iniqtiqtau yukhaq talvanga 2024-06-06-01 talvuuna 2024-09-30mun.

Personnel

Personnel on site: 7

Days on site: 30

Total Person days: 210

Operations Phase: from 2024-06-01 to 2024-09-30

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Proposed Drill Collars	Drilling	Crown	N/A	N/A	N/A
Camp 2022 & Proposed 2024 Camp Site	Camp	Crown	This site was used during the 2022 exploration program and is also the planned location of the 2024 exploration camp.	N/A	N/A

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Kugluktuk	Amanda Dumond	Kugluktuk Angoniatit Association - Hunters and Trappers Organization	2023-04-04

Authorizations

Indicate the areas in which the project is located:

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Nunavut Water Board	Waiting on conformity determination	Applied, Decision Pending		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	Helicopter	

Project accomodation types

Temporary Camp

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Pump	1	0.5 x 0.5m	Pump to supply water for drilling
Generator	1	0.5 x 0.5m	To supply power for rock saw
Rock Saw	1	0.7 x 0.5m	Rock Saw to cut core
Helicopter	1	42x26'	To move drill and people
Twin Otter	1	19.8x17.7m	To move people and supplies
Diamond Drill Rig & Equipment	1	18ft x 18ft	For coring drill holes up to 150m. All equipment will fit within this footprint

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Gasoline	fuel	1	205	205	Liters	Gas for generator
Calcium Chloride	hazardous	20	40	800	Liters	Use in case of drill rods stuff due to perma frost
Diesel	fuel	20	205	4100	Liters	Diesel for drill and water pump

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
144	pump	Lake adjacent to camp (for camp purposes). For drilling purposes a waterbody of sufficient volume to support draw without adverse effects will be selected.

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Camp	Greywater	5 gallons / day	bury in the ground	cover with soil
Drilling	Overburden (organic soil, waste material, tailings)	31,680gal / 24hr	Drill cuttings will be captured and placed in natural depressions	Cover with soil
Camp	Sewage (human waste)	5 gallons per day	Bury in the ground	Cover with soil

Environmental Impacts:

CAMP; Human waste and grey water will be buried to avoid potential contamination of near by waterways. There will be minor vegetation disturbance from foot traffic and temporary camp structures during the program. Previous camp area is being used to minimize disturbance to other areas. All garbage will be removed by helicopter. DRILLING; The noise levels of the drill rig will not be able to be mitigated. However, this should only last for 30 days maximum and there will be shut downs when the drill rig is being moved every couple of days. Vegetation disturbance where drill rig and associated equipment are placed by the helicopter. Drill additives will be biodegradable and cuttings will be directed/trapped in low lying depressions which will act as a natural collection point. This material will then be covered in soils to prevent future disturbances and run off into water bodies.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

On land diamond drilling (Core drilling)

SECTION B3: Geosciences

SECTION B4: Drilling

1.Approximately 12 drill holes will be completed to a maximum depth of 150m each.2.The drilling contractor will be using environmentally friendly biodegradable drilling additives, including the containers they are shipped in.3.Drilling cuttings will be captured and placed in natural depressions and covered with soils.4.Water for the drill will be sourced from a nearby lake using a pump and hose to transport the water.5.Drilling equipment will be mob/demob and moved by helicopter.6.Casing will be left in the holes. These will be capped and marked with a post with reflective materials.

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Description of Existing Environment: Physical Environment

Description of Existing Environment: Biological Environment

Description of Existing Environment: Socio-economic Environment

Miscellaneous Project Information

- Abandonment and Decommissioning PlanThe plan is to remove all equipment including any fuel drums at the end of the drill program.
- Existing site photos with descriptionsThe drilling will carried out west, south north and east of the photo called Metallic showing look SSE. The August 12 Sunset is where the camp will be located.
- Emergency Response PlanSee attached document from Great Slave Drilling.
- Comprehensive Spill Prevention/Plan (must consider hazardous waste and fuel handling, storage, disposal, spill prevention measures, staff training and emergency contacts) Containment fuel spill contingency plans (attach separate contingency plan if necessary) We plan to have double walled fuel tanks and all fuel drums will be stored in berms. Absorbent matting and spill kits will be at the drill, all fuel storage locations and the water pump.
- Waste Management Plan/ProgramGarbage Would be disposed of in Kugluktuk pending approval, otherwise sent to Yellowknife.Sewage (sanitary and grey water) Dig a hole for sewage and greywater.Overburden (organic soils, waste material, etc.) Drill cuttings would be collected and placed in natural low areas.

Identification of Impacts and Proposed Mitigation Measures

Cumulative Effects

The camp location being used was used during the 2022 field exploration program. There would have been some minor impact on vegetation in the camp area due to foot traffic and the use of this site again will have a slightly increased impact on the vegetation in the vicinity. The burying of grey water and human waste in the area would have been done previously as well. However, when completed correctly the impact

would be minimal. The drill pad area will have minor impact to vegetation and the capturing of drill cuttings in low lying areas. Burring the cuttings in soil will mitigate potential runoff into waterbodies. If in the future more drilling is completed this would lead to an increased disturbance of the vegetation and alternative methods of capturing drill cuttings may need to be implemented to avoid filling low lying depressions.

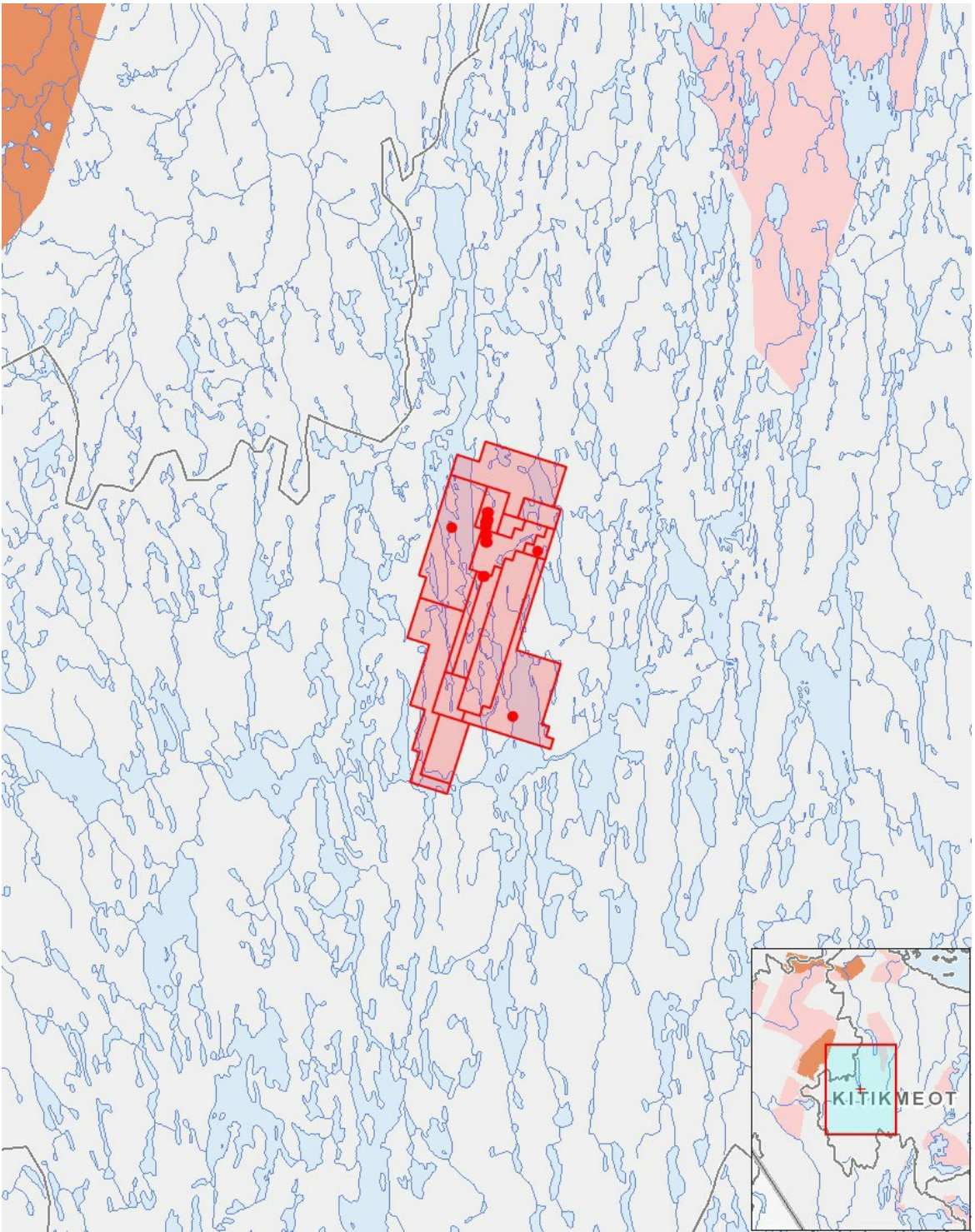
Impacts

Identification of Environmental Impacts

	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
Construction																									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operation																									
Camp	-	-	-	-	-	-	-	-	-	-	-	-	-	M	-	-	-	-	-	-	-	-	-	-	-
Drilling	-	-	-	-	-	-	-	-	-	-	-	-	N	M	U	U	U	-	-	-	P	-	-	-	-
Decommissioning																									
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

1	polygon	Epworth Claims
2	point	Camp 2021
3	point	Camp 2022 & Proposed 2024 Camp Site
4	point	Camp 2023
5	point	Proposed Drill Collars