

# Land Use Permit Renewal Application - Project Summary for the

## **Diagras Project - Hardy Lake Area, Northwest Territories**

This Additional Information to Accompany Application Form

Longitude 109.55° – 110.40" Latitude 64.37° – 64.93°

NTS 1:50,000 Map Sheets 076 C/05, 12,13 & 076 D/08, 09,16

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## **Glossary and Abbreviations**

Word, Term,	Meaning		
Abbreviation			
ADD	Arctic Star Exploration Corp.		
AIMAIO	Akaitcho Interim Measures Agreement Implementation Office		
ARD	Acid Rock Drainage		
CIRNAC	Crown–Indigenous Relations and Northern Affairs Canada		
DKFN	Deninu Kųę́First Nation		
ECCC	Environment and Climate Change Canada		
FRMC	Fort Resolution Métis Council		
GNWT	Government of the Northwest Territories		
KIA	Kitimeot Inuit Association		
KBWG	Kwe Beh Working Group		
Km	Kilometer		
LKDFN	Lútsël K'é Dene First Nation		
LUP	Land Use Permit		
NSMA	North Slave Métis Alliance		
NGO	Non-Government Organizations		
NWT or NT	Northwest Territories		
Plan or PLAN	Engagement Plan		
PWNHC	Prince of Wales Northern Heritage Center		
RC	Reverse Circulation		
the Company	Arctic Star Exploration Corp.		
TG	Tlicho Government		
UTV	Utility task vehicle, ATV, quad		
V.P. Exploration	Vice President Exploration		
WLWB	Wek'èezhìi Land & Water Board		
WRRB	Wek'èezhìi Renewable Resources Board		
YKDFN	Yellowknives Dene First Nation		

#### 1: INTRODUCTION

Arctic Star Exploration Corp. (ADD or Arctic) has been involved in kimberlite exploration in the Northwest Territories since its incorporation in 2001. The Diagras property, which is the subject of this Land-Use Application Renewal, is a joint venture between Arctic Star Exploration Corp. and a private company. The property is located on and to the south of Hardy Lake approximately 40 kilometers northeast of the Diavik diamond mine and 40 kilometers east of the Ekati diamond mine in the Northwest Territories, Canada.

The project area has received numerous exploration campaigns by previous diamond explorers from 1992 to 2005. Initial exploration was conducted by Monopros Limited which subsequently changed its name to De Beers Canada exploration Inc. This work was further advanced through a joint venture between De Beers and Majescor Resources Inc. Previous exploration activities included airborne and ground geophysics, till sampling and drilling with which numerous diamond bearing kimberlite bodies were discovered.

The entire claim package comprising the current Diagras property is composed of 58 mineral claims totaling an area of 47,879.34 hectares.

There is a temporary exploration camp on the property operating under land use permit **W2017C0005**. Historically the winter road servicing the Lupin gold mine to the north paralleled the western boundary of the claims and crossed eastwards through the northern most claims.

Arctic Star is applying to renew a 5-year Class 'A' Land Use permit for the purposes of mineral exploration including temporary camp establishment and drilling potentially commencing winter/spring 2025. It is anticipated the renewal will be granted prior to the expiration of the existing permit.

#### 2: LOCATION, DESCRIPTION and ACCESS

The center of the Diagras property is located approximately 340 kilometers northeast of Yellowknife, Northwest Territories, 40 kilometers northeast of Diavik diamond mine and 40 kilometers east of Ekati diamond mine. Refer to figure 1.

The property consists of a total of 58 mineral claims recorded in August 2014, July 2018 and June 2021 totaling an area of 47,879.34 hectares. The property is rectangular, elongate in a north-south direction. Refer to Table 1 for claim information and figure 2 for an overview of land tenure. The property is centered at approximately 109.80°W, 64.80°N within the 1:50,000 scale National Topographic System (NTS) map sheets 076 C12/13 and D9/16.

Access to the Diagras property is via fixed wing aircraft chartered from Yellowknife, NT. In summer months float equipped planes can utilize numerous beaches for docking, and during winter, ski or wheel-ski planes can land virtually anywhere on the frozen property as there is an

abundance of lakes. Yellowknife is accessible year round via highway 3 and is serviced by a number of commercial air carriers.

In past years the Tibbitt-Contwoyto winter road was operational during February and March connecting Yellowknife, located to the south of Diagras, and the Lupin gold mine 130 kilometers north of the project area. The winter road has historically traveled up the western side of the Diagras property traversing eastward through the north corner. Refer to figure 1.

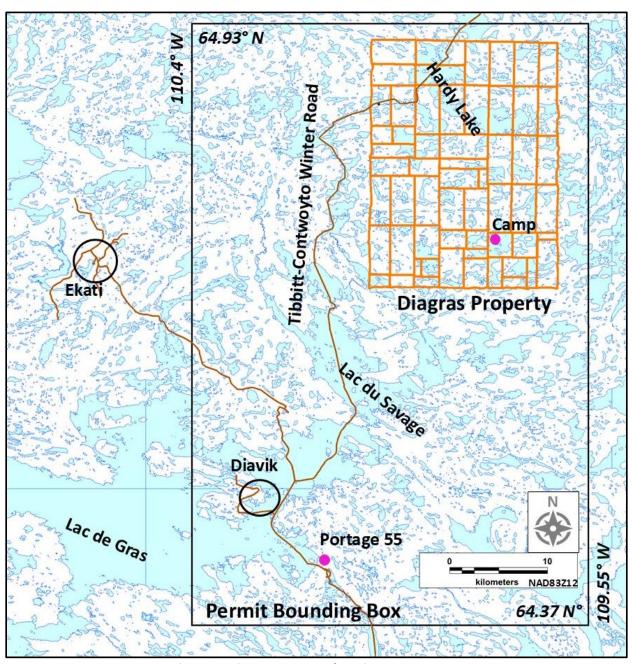


Figure 1: Diagras property location Map NAD83

Table 1: Claims List

Tenure #	Claim Name	Issue Date	Anniversary Date	Hectares	Claim Holder Name
K19740	HL 20	2014-08-13	2025-08-13	825.00	Arctic Star Exploration Corp.
K19741	HL 21	2014-08-13	2025-08-13	1,027.00	Arctic Star Exploration Corp.
K19742	HL 22	2014-08-13	2025-08-13	1,250.00	Arctic Star Exploration Corp.
K19743	HL 23	2014-08-13	2025-08-13	1,250.00	Arctic Star Exploration Corp.
K19757	HL 37	2014-08-13	2025-08-13	736.00	Arctic Star Exploration Corp.
K19758	HL 38	2014-08-13	2025-08-13	626.00	Arctic Star Exploration Corp.
K19760	HL 40	2014-08-13	2025-08-13	395.00	Arctic Star Exploration Corp.
K19761	HL 41	2014-08-13	2025-08-13	1,019.00	Arctic Star Exploration Corp.
K19762	HL 42	2014-08-13	2025-08-13	1,250.00	Arctic Star Exploration Corp.
K19763	HL 43	2014-08-13	2025-08-13	1,250.00	Arctic Star Exploration Corp.
K19764	HL 44	2014-08-13	2025-08-13	1,070.00	Arctic Star Exploration Corp.
K19765	HL 45	2014-08-13	2025-08-13	1,058.00	Arctic Star Exploration Corp.
K19770	HL 50	2014-08-13	2025-08-13	640.00	Arctic Star Exploration Corp.
K19771	HL 51	2014-08-13	2025-08-13	623.00	Arctic Star Exploration Corp.
K19773	HL 53	2014-08-13	2025-08-13	513.00	Arctic Star Exploration Corp.
K19774	HL 54	2014-08-13	2025-08-13	871.00	Arctic Star Exploration Corp.
K19775	HL 55	2014-08-13	2025-08-13	1,250.00	Arctic Star Exploration Corp.
K19776	HL 56	2014-08-13	2025-08-13	1,065.00	Arctic Star Exploration Corp.
K19777	HL 57	2014-08-13	2025-08-13	265.00	Arctic Star Exploration Corp.
K19778	HL 58	2014-08-13	2025-08-13	307.00	Arctic Star Exploration Corp.
K19779	HL 59	2014-08-13	2025-08-13	136.00	Arctic Star Exploration Corp.
K19780	HL 60	2014-08-13	2025-08-13	278.00	Arctic Star Exploration Corp.
K19781	HL 61	2014-08-13	2025-08-13	995.00	Arctic Star Exploration Corp.
M10386	HLD1	2018-07-17	2028-07-17	336.00	Arctic Star Exploration Corp.
M10387	HLD2	2018-07-17	2028-07-17	500.00	Arctic Star Exploration Corp.
M10388	HLD3	2018-07-17	2028-07-17	250.00	Arctic Star Exploration Corp.
M10389	HLD4	2018-07-17	2028-07-17	409.00	Arctic Star Exploration Corp.
M10390	HLD5	2018-07-17	2028-07-17	800.00	Arctic Star Exploration Corp.
M10400	HLD6	2018-07-17	2028-07-17	625.00	Arctic Star Exploration Corp.
M10478	HLD7	2018-07-17	2028-07-17	548.00	Arctic Star Exploration Corp.
M10479	HLD8	2018-07-17	2028-07-17	428.00	Arctic Star Exploration Corp.
M10771	HLE01	2021-06-07	2031-06-07	1,125.00	Arctic Star Exploration Corp.
M10772	HLE02	2021-06-07	2031-06-07	1,125.00	Arctic Star Exploration Corp.
M10773	HLE03	2021-06-07	2031-06-07	1,125.00	Arctic Star Exploration Corp.
M10774	HLE04	2021-06-07	2031-06-07	843.43	Arctic Star Exploration Corp.
M10775	HLE05	2021-06-07	2031-06-07	1,250.00	Arctic Star Exploration Corp.
M10776	HLE06	2021-06-07	2031-06-07	1,027.23	Arctic Star Exploration Corp.
M10777	HLE07	2021-06-07	2031-06-07	1,130.45	Arctic Star Exploration Corp.

M10778	HLE08	2021-06-07	2031-06-07	966.15	Arctic Star Exploration Corp.
M10779	HLE09	2021-06-07	2031-06-07	1,250.00	Arctic Star Exploration Corp.
M10780	HLE10	2021-06-07	2031-06-07	1,250.00	Arctic Star Exploration Corp.
M10781	HLE11	2021-06-07	2031-06-07	1,003.17	Arctic Star Exploration Corp.
M10782	HLE12	2021-06-07	2031-06-07	1,233.36	Arctic Star Exploration Corp.
M10783	HLE13	2021-06-07	2031-06-07	1,250.00	Arctic Star Exploration Corp.
M10784	HLE14	2021-06-07	2031-06-07	1,250.00	Arctic Star Exploration Corp.
M10785	HLE15	2021-06-07	2031-06-07	1,059.29	Arctic Star Exploration Corp.
M10786	HLE16	2021-06-07	2031-06-07	1,217.85	Arctic Star Exploration Corp.
M10787	HLE17	2021-06-07	2031-06-07	508.93	Arctic Star Exploration Corp.
M10788	HLE18	2021-06-07	2031-06-07	1,239.99	Arctic Star Exploration Corp.
M10789	HLE19	2021-06-07	2031-06-07	1,081.28	Arctic Star Exploration Corp.
M10790	HLE20	2021-06-07	2031-06-07	1,173.10	Arctic Star Exploration Corp.
M10791	HLE21	2021-06-07	2031-06-07	183.73	Arctic Star Exploration Corp.
M10792	HLE22	2021-06-07	2031-06-07	1,047.57	Arctic Star Exploration Corp.
M10793	HLE23	2021-06-07	2031-06-07	138.22	Arctic Star Exploration Corp.
M10794	HLE24	2021-06-07	2031-06-07	322.58	Arctic Star Exploration Corp.
M10795	HLE25	2021-06-07	2031-06-07	276.87	Arctic Star Exploration Corp.
M10796	HLE26	2021-06-07	2031-06-07	469.67	Arctic Star Exploration Corp.
M10797	HLE27	2021-06-07	2031-06-07	736.47	Arctic Star Exploration Corp.
TOTAL	58			47,879.34	

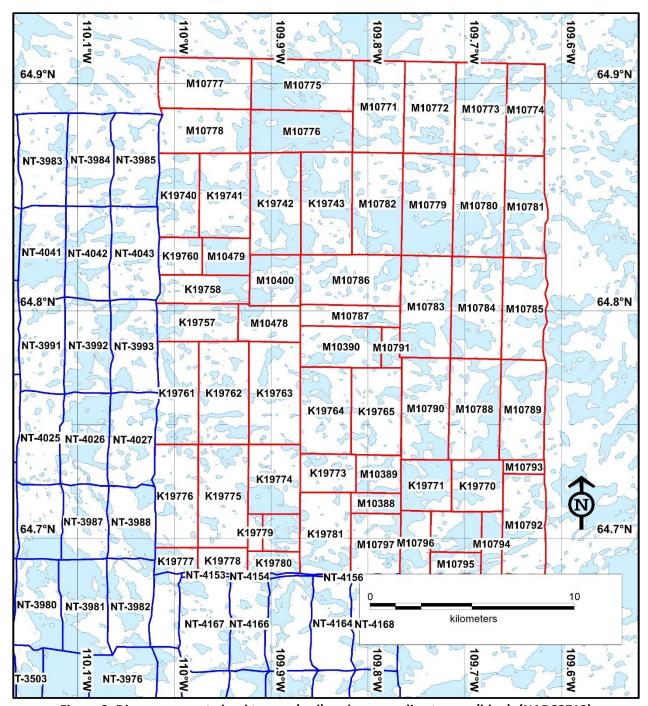


Figure 2: Diagras property land tenure (red) and surrounding tenure (blue). (NAD83Z12)

#### 3: PROPOSED ACTIVITIES

Arctic Star is applying to renew Land-Use permit **W2017C0005** for 5 years for the purposes of mineral exploration including temporary camp establishment and drilling potentially commencing winter/spring 2025. Upon success, exploration programs could eventually host up to 24 personnel at peak capacity and operate from early March to late October however

maximum capacity would not occur for the duration as various exploration activities have preferred operational seasons and climatic requirements. It is anticipated that maximum occupancy could be for approximately half the operational season and half capacity for the remainder resulting in an estimated 4,400 person days of annually occupancy.

Activities to be permitted under the Land-Use permit would include:

- 1. Operation and maintenance of a temporary exploration camp
- 2. Geophysical surveys (ground and airborne)
- 3. Till sampling
- 4. Diamond core and reverse circulation drilling
- 5. Drill rig moving via helicopter or track mounted equipment during snow cover
- 6. Fuel and equipment storage
- 7. Temporary fuel and equipment storage outside the claims block but within the bounding box coordinates (refer to figure 1).
- 8. Ongoing Reclamation and Abandonment and Restoration upon final closure

The temporary fuel and equipment storage outside the claim block will be on existing portages such as Portage 55 (refer to figure 1), but not stored in such a way as to interfere with winter road traffic and activities. Existing disturbed areas adjacent to the traffic way will be used and no clearing other than problematic snow drifts will be required.

The temporary exploration camp site location is N64° 44′ 03″, W109° 45′ 13″ on a flat, low-lying esker in the southeast quadrant of the claim block. Refer to figure 1. This discontinuous esker is located on the shores of an un-named irregular shaped lake. Camp layout, ariel view location and recent ground view photo can be found in figures 3, 4 and 5 respectively. This location allows ample room for regulated fuel storage and grey water setbacks. The esker and area have been previously investigated for archaeological content in 2003 by PWNHC, Thomson, C. "Archaeological Survey of Hardy Lake, NWT", Permit # 2003-928 where "…the team focused on areas of intensive exploration activity and eskers…" (<a href="http://www.pwnhc.ca/cultural-places/archaeology-program/fieldwork-reports/2003-archaeological-reports/#tab-id-3">http://www.pwnhc.ca/cultural-places/archaeology-program/fieldwork-reports/2003-archaeological-reports/#tab-id-3</a>).

Archaeological site locations have been provided to the company by the PWNHC and this camp location falls well beyond the minimum distance required from such identified sites.

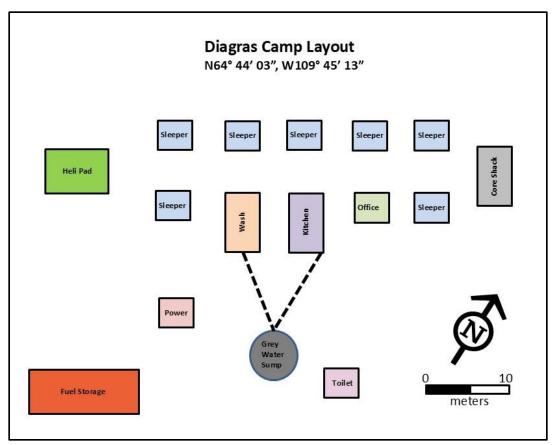


Figure 3: Diagras idealized camp layout. NAD83



Figure 4: Ariel view of camp location looking southwest



Figure 5: Ground view of camp location in shutdown 08August2024 looking southeast.

#### 4: EQUIPMENT

Fuel caches will consist of 205 liter drums as well a 100 lbs propane bottles to support camp and related exploration activities such as drilling. All caches will be located in accordance of LUP permit conditions and will have spill kits available in a prominent, proximal location. The main fuel cache will be located near the camp but at a safe distance. Additional temporary fuel caches of less than 19 drums may be established for immediate consumption for drill moves and support. Any such cache will be immediately registered with the Land Use Inspector upon establishment and notification will be given upon its removal.

The Company is renewing for the quantities of fuel listed below.

Table 2: Fuel Quantities, Location and Use

Fuel Type	Number of	Capacity of	Use	Location
	Containers	Containers		
Diesel	200	205 liters	Camp operations, generator, heating, incinerator, drilling	Camp, supplied to drill as needed.

Gasoline	10	205 liters	Camp operations,	Camp, snowmobiles.
			generator, heating,	
			incinerator, drilling	
Jet Fuel	200	205 liters	Helicopter	Camp, drill site for drill
				move as needed.
Propane	50	100 lbs bottles	Cooking, heating,	Camp, drill.
			drilling.	

**Table 3: Equipment List** 

Number	Туре	Size	Use
2	Boyle 25A/37,	8,600 kg ea (including	Drill testing targets
	Hydracore 2000 or	rods, casing,	
	equivalent	equipment)	
1	Reverse Circulation drill	4,300 kg	Drill testing targets
1	A-Star helicopter or	1,300 kg	Crew and drill
	equivalent		transport
1	Incinerator	500 kg	Burning combustible
			waste
3	snowmobiles	200 kg ea	Crew transport,
			camp support
1	30 Kw generator	800 kg	Camp power
1	15 Kw generator	450 kg	Backup power
1	Water pump	50 kg	Camp water
1	Tractor / snowcat or	5000 kg	Drill move, ice
	equivalent		maintenance
1	Boat with motor	100 kg	Spill response

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