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Assessment Report
on the
Killala Lake Diamond Property

Foxtrap Lake Area & Killala Lake Area
Northwestern, Ontario
Thunder Bay South Mining Division
NTS grid 042E02 & 042D15

Prepared for
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1.0 SUMMARY

Brigadier Gold Limited's Killala Lake Diamond Property (the "Property") consists of 46 single cells located in Foxtrap Lake Area & Killala Lake Area within Northwestern, Ontario of the Thunder Bay South Mining Division. The property, totalling 974 hectares (ha), is located 209 km northeast from Thunder Bay, Ontario and 28 km northwest from Marathon, Ontario. The property can be reached by travelling 23 km west along Highway 17 from Marathon, then travelling 18 km north along Deadhorse Road and following a series of logging roads branching off to the east that intersect the property. The property can be accessed and explored year-round.

The Killala Lake Diamond Property is located within the Archean Superior Province within the Wawa-Abitibi terrane. The Wawa-Abitibi granite-greenstone terrane contains Neoarchean volcanic rocks erupted through juvenile oceanic crust and is interpreted to represent an oceanic arc depositional environment (Williams, 1989 as cited in Magnus, 2019). The granite and greenstone belts are subsequently overlain and intruded by Proterozoic igneous rocks and metasedimentary sequences (Hinz & Hollings, 2015). The Schreiber-Hemlo greenstone belt of the Wawa-Abitibi terrane is located in the Killala Lake Diamond Property region. The property is located 20 km north of the Coldwell Alkalic Complex which separates the western Schreiber-Hemlo greenstone and the eastern Schreiber–Hemlo greenstone belt. The Little Pic River pluton, dated at 2680–2670 Ma, occupies the area north of the Coldwell Complex in which the Killala Lake Diamond Property is situated (Kamo and Hamilton 2017, 2018 as cited in Magnus, 2019). The Killala Lake alkalic intrusive complex is located 20 km north of the property and intrudes the Quetico metasedimentary belt stretching along the north boundary of the Wawa-Abitibi terrane (Figure 4).

The property is dominated by a gneissic tonalite suite, probably part of the Little Pic River Pluton (Magnus, 2019). Work conducted on the Killala property confirms that the area is underlain predominantly by granitoid rocks including gneisses, and lesser metavolcanic and metasedimentary units. Younger diabase and lamprophyre dykes intrude these sequences (Verley, 2009). The Madonna Dyke is classified as an Alnöite ultramafic lamprophyre (Mitchell, 2007; Kozlowski, 2016).

Three (3) crustal-scale structures traverse the region of the Property: the Kapuskasing Structural Zone, the arcuate Midcontinent Rift system and the Trans-Superior Tectonic Zone (TSTZ). Diamondiferous kimberlites are typically found within thick lithospheric crust of Archean cratons, and lamproites occur along craton margins or in accreted Proterozoic mobile belts (Thurston and Newsome, 2002). The emplacement of intrusive kimberlitic or alkaline rocks is often associated with large-scale structural zones, such as those transecting the Killala Lake Diamond Property area (Thurston and Newsome, 2002; MNDM, 2014

A ground magnetic survey was performed in 2007 on the Killala Project in search for potential diamond-bearing kimberlites (Boileau, 2007). Further prospecting was undertaken leading to the discovery of the Madonna dyke. In 2009, a 1205 kg sample of the Madonna dyke was taken and shipped to Kennecott Canada Exploration Inc's Mineral Processing Laboratory in Thunder Bay, Ontario for processing to recover diamonds by dense media separation (DMS). The sample returned a total of 66 diamonds including 21 stones greater than 0.5 mm in size (Verley, 2009).

A high-resolution drone magnetic survey was carried out by SUMAC Geomatics Inc of Thunder Bay, ON in April, 2020. There were two survey blocks flown, one with 25m line spacing totalling 66 l-km and a second block with 50m line spacing totaling 87 l-km. The two blocks were flown to provide a higher resolution dataset for areas that contained the known Madonna Dyke occurrences. The raw data provided from the survey was sent to St. Pierre Geoconsultants Inc. for processing and data leveling (Figure 6). It is not immediately evident from the Total Magnetic Intensity (TMI) produced from the high-resolution drone magnetic survey whether there is a continuation of the lamprophyre dyke. The company should carry out further interpretation of the drone magnetic data that was collected as the quality of the data collected was poor. It is also recommended that the company perform further drilling on the showing to determine the extent of the dyke as well as to provide enough material to send for a bulk sample to determine the quantity and quality of diamond present.

2.0 INTRODUCTION

Brigadier Gold Limited's Killala Lake Diamond Property (the "Property") consists of 46 single cells located in Foxtrap Lake Area & Killala Lake Area within Northwestern, Ontario of the Thunder Bay South Mining Division. The property, totalling 974 hectares (ha), is located 209 km northeast from Thunder Bay, Ontario and 28 km northwest from Marathon, Ontario. The property can be reached by travelling 23 km west along Highway 17 from Marathon, then travelling 18 km along Deadhorse Road and following a series of logging roads branching off to the east that intersect the property. Skilled and experienced mining workforce is available in Marathon in support of Hemlo gold mines production, located 36 km east of the town. The property can be accessed and explored year-round.

The Killala Lake Diamond Property is located within the Archean Superior Province within the Wawa-Abitibi terrane. The Wawa-Abitibi granite-greenstone terrane contains Neoarchean volcanic rocks erupted through juvenile oceanic crust and is interpreted to represent an oceanic arc depositional environment (Williams, 1989 as cited in Magnus, 2019). The granite and greenstone belts are subsequently overlain and intruded by Proterozoic igneous rocks and metasedimentary sequences (Hinz & Hollings, 2015). The Schreiber-Hemlo greenstone belt of the Wawa-Abitibi terrane is located in the Killala Lake Diamond Property region. The property is located 20 km north of the Coldwell Alkalic Complex which separates the western Schreiber-Hemlo greenstone and the eastern Schreiber–Hemlo greenstone belt. The Little Pic River pluton, dated at 2680–2670 Ma, occupies the area north of the Coldwell Complex in which the Killala Lake Diamond Property is situated (Kamo and Hamilton 2017, 2018 as cited in Magnus, 2019). The Killala Lake alkalic intrusive complex is located 20 km north of the property and intrudes the Quetico metasedimentary belt stretching along the north boundary of the Wawa-Abitibi terrane (Figure 4).

Three (3) crustal-scale structures traverse the region of the Property. The Kapuskasing Structural Zone, a 500 km long fault-bounded structure, transects the Wawa-Abitibi terrane and Quetico belt approximately 290 km east of the property and exposes a rare, nearly complete 20 km cross section of Archean crust (Percival & West 1994; Percival et al., 2012). The arcuate Midcontinent Rift system (MCR), one of the largest rift systems in the world, extends approximately 2200 km from Kansas, USA, north to the Lake Superior area, and southeast beneath the Michigan Basin to the Grenville Front. Rift formation is thought initiated by an ascending mantle plume (Cannon, 1994; Nicholson et al., 1997) but rapidly transitioned from an extensional zone a compressional zone during 1080 and 1040 Ma, accommodating 30 km of crustal shortening (Cannon, 1994). The Trans-Superior Tectonic Zone (TSTZ) is defined by several Mid-Continent Rift-related faults in the Lake Superior area. The Madonna Dyke is located to the west of the north-trending extension of the Thiel Fault, which forms a perpendicular transect trending north-northeast to the Coldwell Alkalic Complex (in the northern part of the Trans-Superior Tectonic Zone (Mariano and Hinze, 1994; Smyk et al., 1993). It has been determined that the Coldwell Alkalic Complex and Killala Lake Alkalic Complex are related to MCR magmatism (Smyk et al., 1993).

The property is dominated by a gneissic tonalite suite, probably part of the Little Pic River Pluton (Magnus, 2019). Work conducted on the Killala property confirms that the area is underlain predominantly by granitoid rocks including gneisses, and lesser metavolcanic and metasedimentary units. Younger diabase and lamprophyre dykes intrude these sequences (Verley, 2009). The Madonna Dyke is classified as an Alnöite ultramafic lamprophyre (Mitchell, 2007; Kozlowski, 2016). The Madonna dyke outcrop is described as a hypabyssal rock with medium-to fine-grained phenocrysts set in a very fine-grained dark green to black groundmass (Kozlowski, 2016).

Diamondiferous kimberlites are typically found within thick lithospheric crust of Archean cratons, and lamproites occur along craton margins or in accreted Proterozoic mobile belts (Thurston and Newsome, 2002). The emplacement of intrusive kimberlitic or alkaline rocks is often associated with large-scale structural zones, such as those transecting the Killala Lake Diamond Property area (Thurston and Newsome, 2002; MNDM, 2014

A ground magnetic survey was performed in 2007 on the Killala Project in search for potential diamond-bearing kimberlites (Boileau, 2007). Further prospecting was undertaken leading to the discovery of the Madonna dyke. In 2009, a 1205 kg sample of the Madonna dyke was taken and shipped to Kennecott Canada Exploration Inc's Mineral Processing Laboratory in Thunder Bay, Ontario for processing to recover diamonds by dense media separation (DMS). The sample returned a total of 66 diamonds including 21 stones greater than 0.5 mm in size (Verley, 2009).

3.0 PROPERTY DESCRIPTION AND LOCATION

Brigadier Gold Limited's Killala Lake Diamond Property (the "Property") consists of 46 single cells located in Foxtrap Lake Area & Killala Lake Area within Northwestern, Ontario of the Thunder Bay South Mining Division. The Killala Lake Diamond Property is located 209 km northeast from the city of Thunder Bay, Ontario and 28 km northwest from the town of Marathon, Ontario (Figure 1). The property lies within NTS grid 042E02 & 042D15 and totals 974 hectares (ha). The total work requirement for the property amounts to $18,400. The Killala Lake Diamond Property claims are listed in Table 1 and shown in Figure 2.

The mining claims comprising the Property have not been legally surveyed. All mining claims are currently in good standing. The Government of Ontario requires expenditures of $400 per year per single cell mining claim prior to expiry, to keep the claims in good standing for the following year.

There are no known environmental liabilities associated with the Property. The proposed exploration program in this report is subject to the guidelines, policies and legislation of the Ontario Ministry of Energy, Northern Development and Mines, Ontario Ministry of Natural Resources and Forestry, and Federal Department of Fisheries and Oceans regarding surface exploration, stream crossings, and work being carried out near rivers and bodies of water, drilling and sludge disposal, drill casings, capping of holes, storage of core, trenching, road construction, waste and garbage disposal.

The Ontario Mining Act requires Exploration Permits or Plans for exploration on Crown Lands for any activity outside of prospecting or mapping and sampling. The permit and plans are obtained from the Ministry of Northern Development and Mines. Processing periods are 50 days for a permit and 30 days for a plan while the documents are reviewed by the Ministry and presented to the Aboriginal communities whose traditional lands are located where the work is to be executed.

Figure 1: Location of the Killala Lake Diamond Property

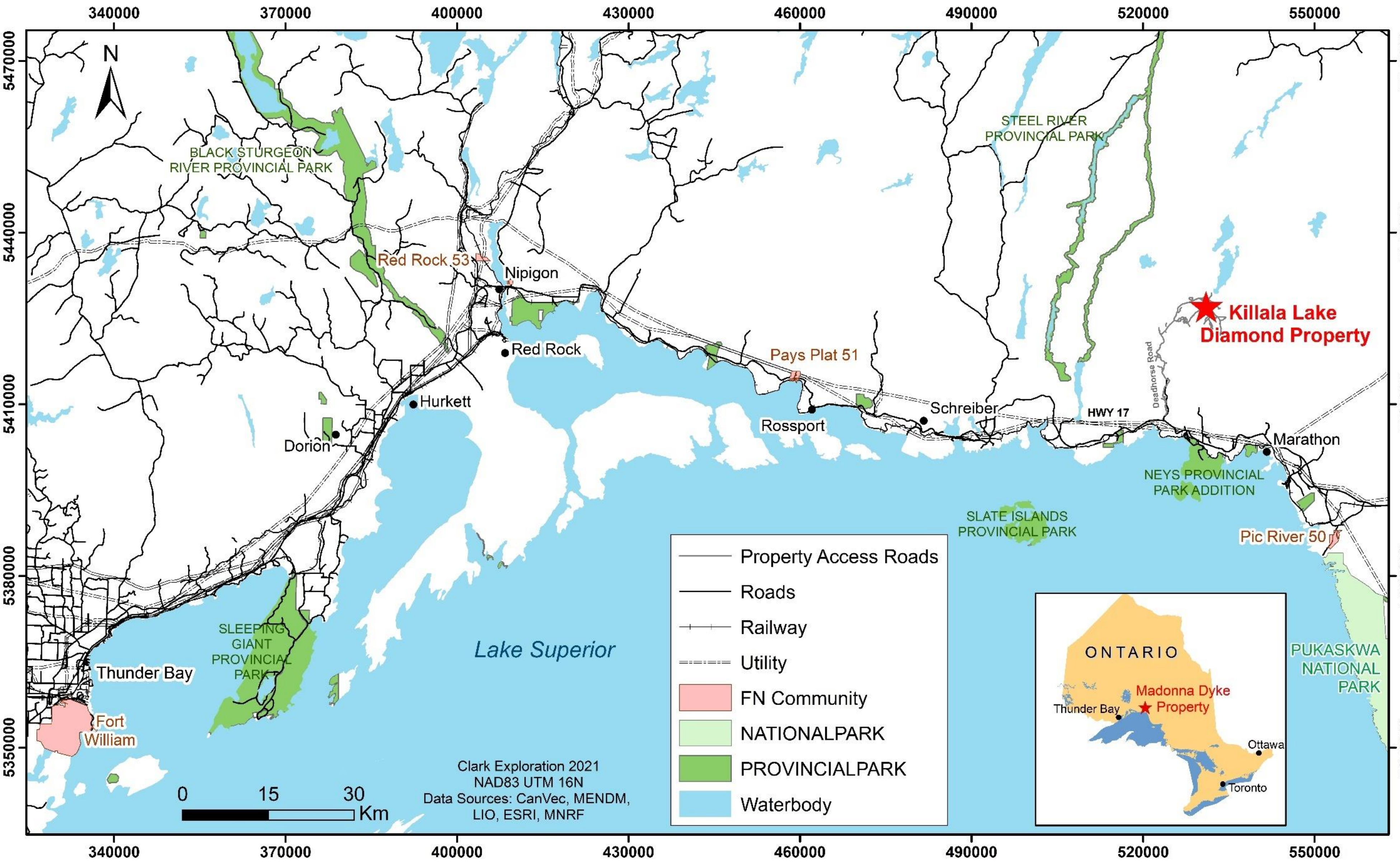


Figure 2: Killala Lake Diamond Property Claims

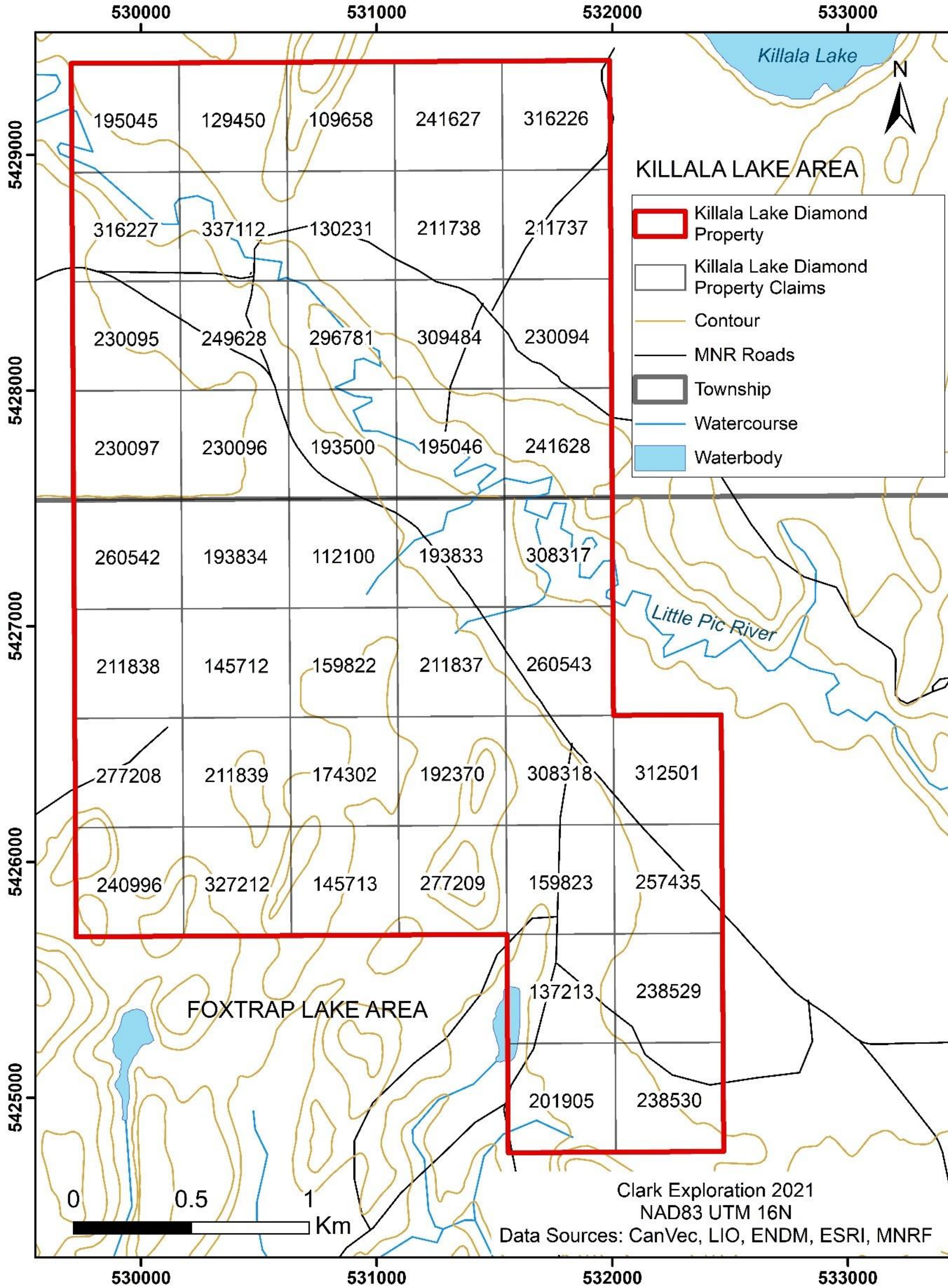


Table 1: Killala Lake Diamond Property Claims

Claim Number	Claim Type	Holder	Township	Anniversary Date	Work Required
109658	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
112100	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA, KILLALA LAKE AREA	2022-05-29	$400
129450	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
130231	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
137213	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-21	$400
145712	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
145713	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
159822	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
159823	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
174302	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
192370	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
193500	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-05-29	$400
193833	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA, KILLALA LAKE AREA	2022-05-29	$400
193834	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA, KILLALA LAKE AREA	2022-05-29	$400
195045	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
195046	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-05-29	$400
201905	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-21	$400
211737	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
211738	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
211837	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
211838	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
211839	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
230094	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
230095	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
230096	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-05-29	$400
230097	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-05-29	$400
238529	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-21	$400
238530	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-21	$400
240996	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
241627	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
241628	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-05-29	$400
249628	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
257435	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-21	$400
260542	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA, KILLALA LAKE AREA	2022-05-29	$400
260543	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
277208	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
277209	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
296781	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
308317	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA, KILLALA LAKE AREA	2022-05-29	$400
308318	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
309484	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
312501	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-21	$400
316226	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
316227	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400
327212	Single Cell Mining Claim	(100) RUDOLF WAHL	FOXTRAP LAKE AREA	2022-05-29	$400
337112	Single Cell Mining Claim	(100) RUDOLF WAHL	KILLALA LAKE AREA	2022-12-20	$400

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Killala Lake Diamond Property is located 209 km northeast from the city of Thunder Bay, Ontario and 28 km northwest from the town of Marathon, Ontario (Figure 1). The project can be reached from Thunder Bay by travelling 115 km northeast along Highway 11/17 to Nipigon, Ontario and then travelling east-southeast for 140 km along Highway 17. From here, the property can be reached by travelling north on the Deadhorse Road for 18 km to the Jackpine Road. Following the Jackpine Road for 3 km to the Vein Lake Road which can be followed for 10 km to the east before intersecting the Property (Figure 1). From Marathon, Ontario, the property can be accessed by travelling 23 km approximately east along Highway 17. From here, the property can be accessed by travelling approximately 25 km along the same network of logging roads.

The City of Thunder Bay, located 209 km southeast from the Property, has a population of 110,000 and provides support services, equipment, and skilled labour for both the minerals exploration and mining industries. Rail, national highway, port, and international airport services are also available out of Thunder Bay. The town of Marathon hosts a population of 3,273 and provides basic amenities and resources including housing. Marathon’s economy is supported by Hemlo Operations, comprised of three (3) gold mining operations 36 km east of the town. Skilled and experienced mining workforce is available in Marathon (Verley, 2009).

The Killala Lake Diamond Property is situated in an area of rolling hills of relatively low relief. The Property consists of topography characterized by small hills surrounded by narrow incised valleys that appear to align with both with structural features of the underlying bedrock and glacial direction (mean elevation 325 metres above sea level). Small wetland areas occupy topographic depressions. Tree cover consists of white and jack pine, birch, spruce and balsam on elevated topography, and cedar, spruce, birch and tamarack in swampy lowlands. Overburden is comprised of boulder laden glacial till and outwash deposits, with muskeg and organic deposits in low-lying areas. The property is forested with spruce and cedar. Parts of the property have been logged.

The climate in Marathon consists of summers that are cool and partly cloudy and the winters that are short, frigid, snowy, windy, and overcast. Temperatures typically varies from -19°C to 20°C. The rainy period of the year lasts from mid March to mid December with a sliding 31-day rainfall of at least 13 millimetres. The snowy period of the year lasts from mid October to mid May, with a sliding 31-day snowfall of at least 25 millimetres. The month with the most snow in Marathon is December, with an average snowfall of 211 millimetres. The property has abundant water supply from lakes and creeks within the property boundaries. Exploration can be conducted on a year-round basis (Verley, 2009).

5.0 HISTORY

A review of the MENDM assessment files available online indicates the first recorded exploration over the Property started in 1985.

1985-1987 - Noranda Exploration Co (AFRI 42E01NW0100, 42E01SW0003)
Noranda Exploration performed an airborne VLF-EM survey totalling 1360 line km over the Killala Lake claim group in the Hemlo area of Ontario. Based on this survey, claim groups were staked and an additional 10.2 line kilometers were flown over the claims. Very little of the survey area is covered by the Killala Lake Diamond Property.

2006 - Dianor Resources Inc., Rudolf Wahl (AFRI 20000001952)
A ground magnetic survey was performed over 45 airborne magnetic targets on parts of the Killala Project in search for potential diamond-bearing kimberlites. The magnetic survey was distributed over 38 individual grids and in total, 343.94 line km were completed. The following grids overlap the current claims: New Grid, C-D-Line 1, and Grid B (Figure 3). None of the anomalies within these grids (outlined below) were selected for follow-up.

Within New Grid, an isolated, short linear zone of strong magnetic low of 3000 nT below the local background (Figure 3). The anomaly is thought to be associated with a north-south-trending dyke traversed and possibly disrupted by east-west oriented structures.

Anomaly D occurs within the C-D-Line 1 grid and coincides with a larger linear zone of strong magnetic low of 500 to 2000 nT below the local background level, corresponding likely with one or two N-S oriented regional dykes (Figure 3). Anomaly C corresponds with a larger and poorly defined weak magnetic high zone of about 10 nT which was partially surveyed to the north. Anomaly Line 1 consists of a larger zone of weak and rather flat magnetic low of 100 nT forming a NE-SW oriented corridor of 100 m to 150 m wide. This corridor is located on the north flank of a linear zone of magnetic high of 500 nT and is traversed by a series of NW-SE weak magnetic lineaments possibly representing dykes.

Within Grid B, a poorly defined magnetic high zone of small, isolated small peaks of 50 to 200 nT appears to form a fuzzy circular pattern (Figure 3). This feature is flanked to the east by a zone of magnetic low presenting the same characteristics.

2006-2007 - Dianor Resources Inc, Rudolf Wahl (AFRI 20000000015)
A till sampling program was conducted on the Killala Property to identify possibly mineralized zones. A total of 28 samples were taken with a shovel in 2006 and 15 samples were taken by Pion jar drill during the winter of 2007. A total of 17 samples total were collected on the current Killala Lake Diamond Property. Of these samples, the highest assay values returned are: 0.3 ppm Ag and 53 ppm Zn from sample 14080, 51 ppm Cu and 37 ppm Ni from sample 14084, 168 ppm Pb from sample 14083, and 52 ppb Au from sample 14088. The program was deemed not successful in discerning possibly mineralized zones.

2007 - Dianor Resources Inc (AFRI 20000002675)
A ground magnetics survey was conducted over total of 25.3 line kilometers covering 4 previously identified airborne anomalies. These includes the anomalies on Grid C-D-Line 1 within the current Killala Lake Diamond Property. Four complementary profiles done over target C confirmed the existence of a poorly defined zone of weak magnetic high of about 100 nT. This zone is thought to outline a possible, subtle pseudo-circular pattern of magnetic high with a 300m diameter.

2009 - Rudolf Wahl (AFRI 20000003899)
A 1205 kg sample of lamprophyre dyke was taken from the historical claim 3015128 (the current cell 193834). The sample was sent to Kennecott Exploration Canada Inc mineral processing laboratory in Thunder Bay for processing to recover diamonds. The results returned a total of 66 diamonds including 21 stones greater than 0.5 mm in size and 8 stones greater than 0.85 mm in size.

2013 - Rudolf Wahl (AFRI 20000008166)
A total of 29 soil samples were collected and sent for SGH analysis at Activation Laboratories in Thunder Bay from the Killala Lake South Property. It was determined that two adjacent redox cells at “Target No. 6” (approximate location in Figure 5) have the SGH characteristics signature of identification of a Kimberlite Pipe. Infill sampling was recommended to further evaluate the drill target. The soil samples fall on cells 201905 and 137213 on the current Killala Lake Diamond Property. An 86 kg rock sample (KIL1301) collected from cell 249628 of the current Property (north of the main Madonna Dyke outcrop) was sent for diamond fusion at Rio Tinto's Thunder Bay Mineral Processing Lab and returned 5 micro diamonds.

2014 - Rudolf Wahl (AFRI 20000014696)
Geological mapping and prospecting programs were conducted on the Killala Lake South Property. A single sample (RW1) was sent for petrographic analysis by Professor Roger H. Mitchell of Lakehead University. The rock was classified as melilitite clan. This sample is a hypabyssal rock and can be regarded as a variety of alnoite. The rock is unusual in that it contains late-stage primary amphiboles - no name exists for such an amphibole-bearing assemblage. The sample has no textural or mineral affinities with kimberlites or lamproites. A yellow diamond was found in the host of a chipped sample taken from the Madonna Dyk by Professor Shannon Zurevinski (P.Geo.) of Lakehead University. This sample is in the care of Shannon Zurevinski at the university and no further details have been provided.

2017 - Rudolf Wahl (AFRI 20000013622)
Two (2) 18 kg till samples were collected from ‘Target No. 6” in the southern end of cell 137213 of the current Killala Lake Diamond Property (approximate location in Figure 5). The samples were sent to the Kimberlite Indicator Processing (KIM) Laboratory of the Microlithic Laboratory in Thunder Bay, Ontario. A total of 15 kimberlitic and possible kimberlitic indicator minerals (KIM) were extracted from the two concentrates. These samples returned 2 G9 garnets, an important indicator for diamond bearing kimberlites.

Ten (10) samples were taken for investigation and classification as part of an undergraduate thesis study by Alexandra Kozlowski (2016) included in the report. This study classifies Madonna Dyke as an ultramafic lamprophyre of Alnoitic affinity.

Dr. Shannon Zurevinski, Dr. Amanda Diochon and Student Dana Campbell performed a Soil and Vegetations sampling program over the “Target No. 6” in September 2016. This study suggests that the vegetation above “Target No. 6” could be influenced by an anomalous deposit below the sediment.

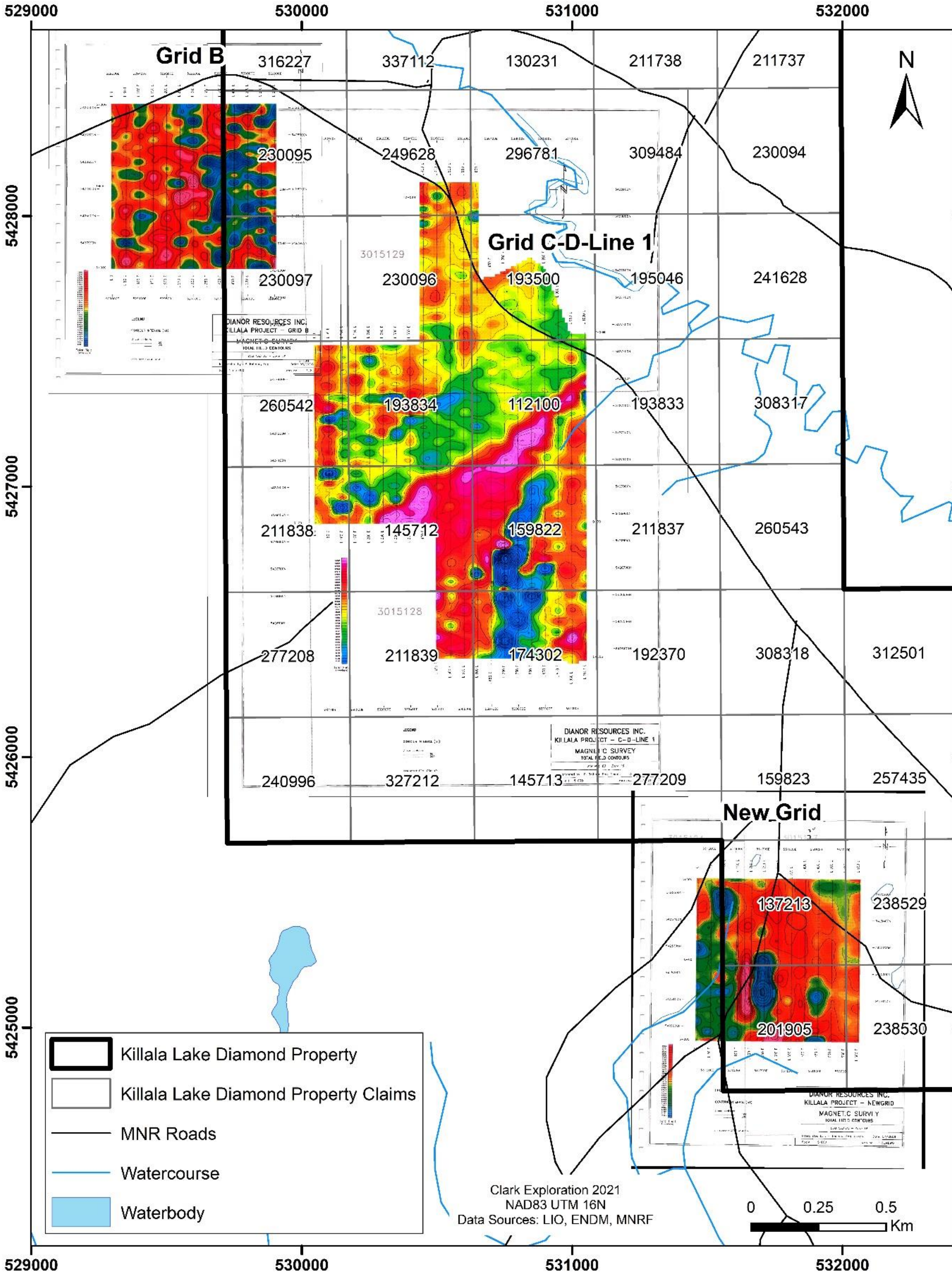
2018 - Rudolf Wahl (AFRI 20000017936)

Three (3) diamond drill holes totalling 1,203 m were drilled on the property. The drill holes are outlined in Table 2 and locations are shown in Figure 5. DDH-01 targeted “Target No. 6” however diamondiferous intersections were not identified. In DDH-02, a potentially diamond-bearing dyke of porphyritic lamprophyre was intersected from 157-159.79 m. This interval is described as identical to the Madonna Diamond dyke, located 82 m to the northeast. DDH-03 also intersected a Ocellar ultramafic lamprophyre dyke 289.5-298. No samples were sent for diamond fusion.

Table 2: Drill Holes on the Killala Lake Diamond Property

Hole Number	Easting (m)	Northing (m)	Azimuth (°)	Dip (°)	Length (m)	Target
DDH-01	531709	5425443	106.1	-60.3	402	Target No. 6
DDH-02	530433	5427051	321	-49.5	399	Madonna Dyke
DDH-03	530294	5427191	297.4	-50.5	402	West Of Madonna
TOTAL					**1,203**	

Figure 3: Dianor Resources Inc. Ground Magnetic Survey Grids on the Killala Lake Diamond Property



6.0 GEOLOGICAL SETTING AND MINERALIZATION

6.1 REGIONAL GEOLOGY

The Killala Lake Diamond Property is located in the Wawa-Abitibi terrane within the Archean Superior Province. Previously, the Abitibi and Wawa terranes were considered separate sub provinces, but more recent research accepts these terranes are correlated across the Kapuskasing uplift structure. The Wawa–Abitibi granite-greenstone terrane contains Neoarchean volcanic rocks erupted through juvenile oceanic crust and is interpreted to represent an oceanic arc depositional environment (Williams 1989 as cited in Magnus, 2019). The granite and greenstone belts are subsequently overlain and intruded by Proterozoic igneous rocks and metasedimentary sequences (Hinz & Hollings, 2015). Within the Lake Superior region, the Proterozoic rocks include rocks of the Animikie Basin and Keweenawan volcanic and gabbroic complexes associated with the Midcontinent Rift (Corfu & Stott 1998, as cited in Hinz & Hollings, 2015). Within this area, the Wawa-Abitibi terrane and the Quetico terrane to the north is separated by the the Killala Lake deformation zone which is several kilometers wide consisting of amphibolite facies migmatites and gneisses of mixed sedimentary and igneous origin, most easily recognised by the straight, finely banded nature of the rocks (Williams, 1989). The Quetico terrane is composed mainly of turbiditic siliciclastic rocks with sparse slivers of oceanic crust and is interpreted to represent an accretionary wedge (Williams 1989; Fralick, Purdon and Davis 2006 as cited in Magnus 2019).

The Schreiber-Hemlo greenstone belt of the Wawa-Abitibi terrane is located in the Killala Lake Diamond Property region. The property is located 20 km north of the Coldwell Alkalic Complex which separates the western Schreiber-Hemlo greenstone and the eastern Schreiber–Hemlo greenstone belt (Figure 4). The Coldwell Alkalic complex (circa 1108 Ma) consists of rocks of the Superior Province intruded by alkalic rocks and carbonatities, most related to the Midcontinent rift system (MCR) and the Trans-Superior Tectonic Zone (TSTZ) (Kozlowski, 2016; Bleeker et al. 2018 and Liikane et al. 2018 as cited in Magnus, 2019). The Little Pic River pluton, dated at 2680–2670 Ma, occupies the area north of the Coldwell Complex in which the Killala Lake Diamond Property is situated (Kamo and Hamilton 2017, 2018 as cited in Magnus, 2019). The pre-rift Prairie Lake carbonatite-ijolite complex (circa 1157–1164 Ma) is located 10 km northwest from the property (Wu et al. 2017) (Figure 4). The Killala Lake alkalic intrusive complex is located 20 km north of the property and intrudes the Quetico metasedimentary belt (Figure 4). The Deadhorse Creek Diatreme is located 20 km to the southwest proximal to the Coldwell Complex western boundary. Metamorphic grade progresses from greenschist grade metasedimentary rocks at the Lake Superior shoreline and on the southern section of the Deadhorse Creek Road, northwards into amphibolite facies gneisses and migmatites near the Prairie Lake and Killala Lake alkaline complexes at the Abitibi-Wawa - Quetico terrane boundary (Williams, 1989)

Percival (2012) describes that diamond-bearing breccias of calc-alkaline affinity also appear to have originated in a suprasubduction-zone settings of the Wawa-Abitibi terrane (Vaillancourt et al. 2004; Kopylova et al. 2005; Stachel et al. 2006; O'Neill and Wyman 2006; Wyman et al. 2008).

Regional Structures

Kapuskasing Structural Zone

Adapted from Percival et al. (2012)

The Kapuskasing Structural Zone, or Kapuskasing uplift, is a 500 km long fault-bounded structure, transects the Wawa-Abitibi terrane and Quetico belt approximately 290 km east of the property (Percival & West 1994). The Kapuskasing uplift exposes a rare, nearly complete 20 km cross section of Archean crust, with the upper crust represented by the Michipicoten greenstone belt, the middle crust by the Wawa gneiss domain, and the lower crust by the Kapuskasing Structural Zone.

Midcontinent Rift

Adapted from Kozlowski (2016)

The Midcontinent Rift system (MCR) of North America is one of the largest known failed rifts. The arcuate MCR extends approximately 2200 km from Kansas, USA, north to the Lake Superior area, and southeast beneath the Michigan Basin to the Grenville Front. Rift formation is thought to be initiated by an ascending mantle plume causing lithospheric weakening and extensional forces within the Laurentian supercontinent (Cannon, 1994; Nicholson et al., 1997). According to seismic reflection profiles, the deepest portion of the rift is about 30km, subsiding along normal growth faults. The central graben is filled with at least 20 km of volcanic rocks and 10 km of overlying sedimentary rocks. These rift-related volcanic and sedimentary rocks compose the Keweenawan Supergroup (Nicholson et al.,1997). Through high-precision U-Pb zircon dating and magnetic polarity shifts, it has been determined that emplacement of the volcanic rocks occurred episodically during 1108 Ma to 1086 Ma (Nicholson et al., 1997). During the time between 1080 and 1040 Ma, the rift rapidly transitioned from an extensional zone of crustal separation to a compressional zone, accommodating 30 km of crustal shortening. These compressional forces closed the southwest arm of the rift and inverted the central graben by the reactivation of extensional faults into thrust faults. (Cannon, 1994).

Trans-Superior Tectonic Zone

Adapted from Kozlowski (2016)

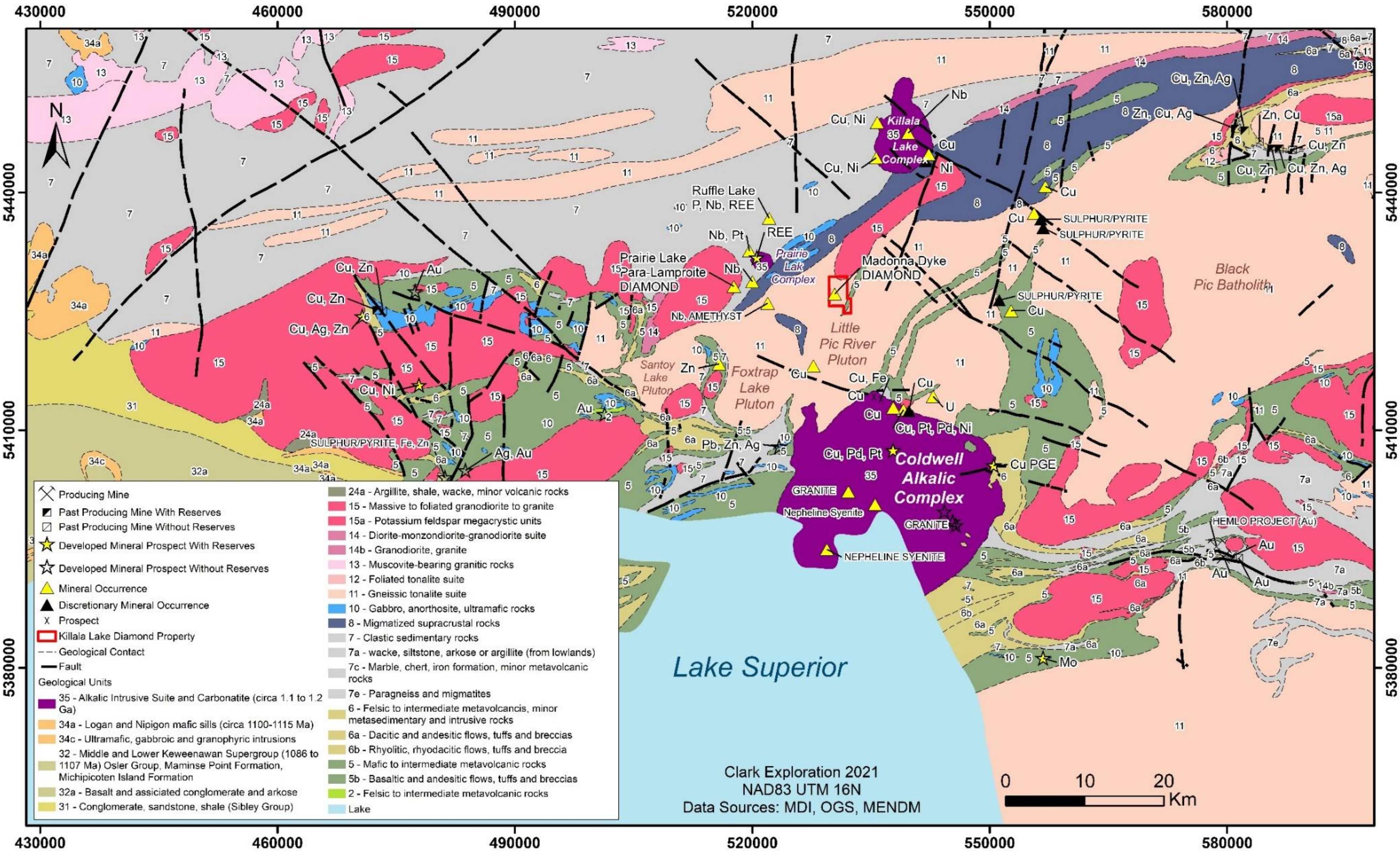
The Trans-Superior Tectonic Zone (TSTZ) is defined by several Mid-Continent Rift-related faults in the Lake Superior area. The majority of these faults trend from west to southeast, along the curvature of Lake Superior, except for the Thiel Fault, which forms a perpendicular transect trending north-northeast to the Coldwell Alkalic Complex (Mariano and Hinze, 1994). The Madonna Dyke is located to the west of the north-trending extension of the Thiel Fault, the northern part of the Trans-Superior Tectonic Zone (Smyk et al., 1993). It has been determined that the nearby Coldwell Alkalic Complex, Killala Lake Alkalic Complex and probably the Dead Horse Creek complex are related to the MCR magmatism (Smyk et al., 1993).

Diamond Occurrences in the Superior Province

Adapted from Kozlowski (2016)

Episodic reactivation of the Superior province is displayed by the development of Proterozoic faulting and the intrusion of several generations of carbonatite-alkalic rock complexes and diabase dykes. Diamondiferous kimberlites are typically found within thick lithospheric crust of Archean cratons, and lamproites occur along craton margins or in accreted Proterozoic mobile belts (Thurston and Newsome, 2002). The emplacement of intrusive kimberlitic or alkaline rocks is often associated with large-scale structural zones, such as rifts or terrane boundaries (Thurston and Newsome, 2002; MNDM, 2014). Kimberlite and diamond occurrences in the Superior province appear to be in close proximity to the Proterozoic and Phanerozoic faults. In Ontario, kimberlite clusters have been dated to two episodes: Early to Middle Jurassic (180Ma to 160Ma) and Mesoproterozoic (1110 Ma to Keweenawan) (MNDM, 2006). Diamonds have been found in kimberlites across the province.

Figure 4: Regional Geology



6.2 PROPERTY GEOLOGY

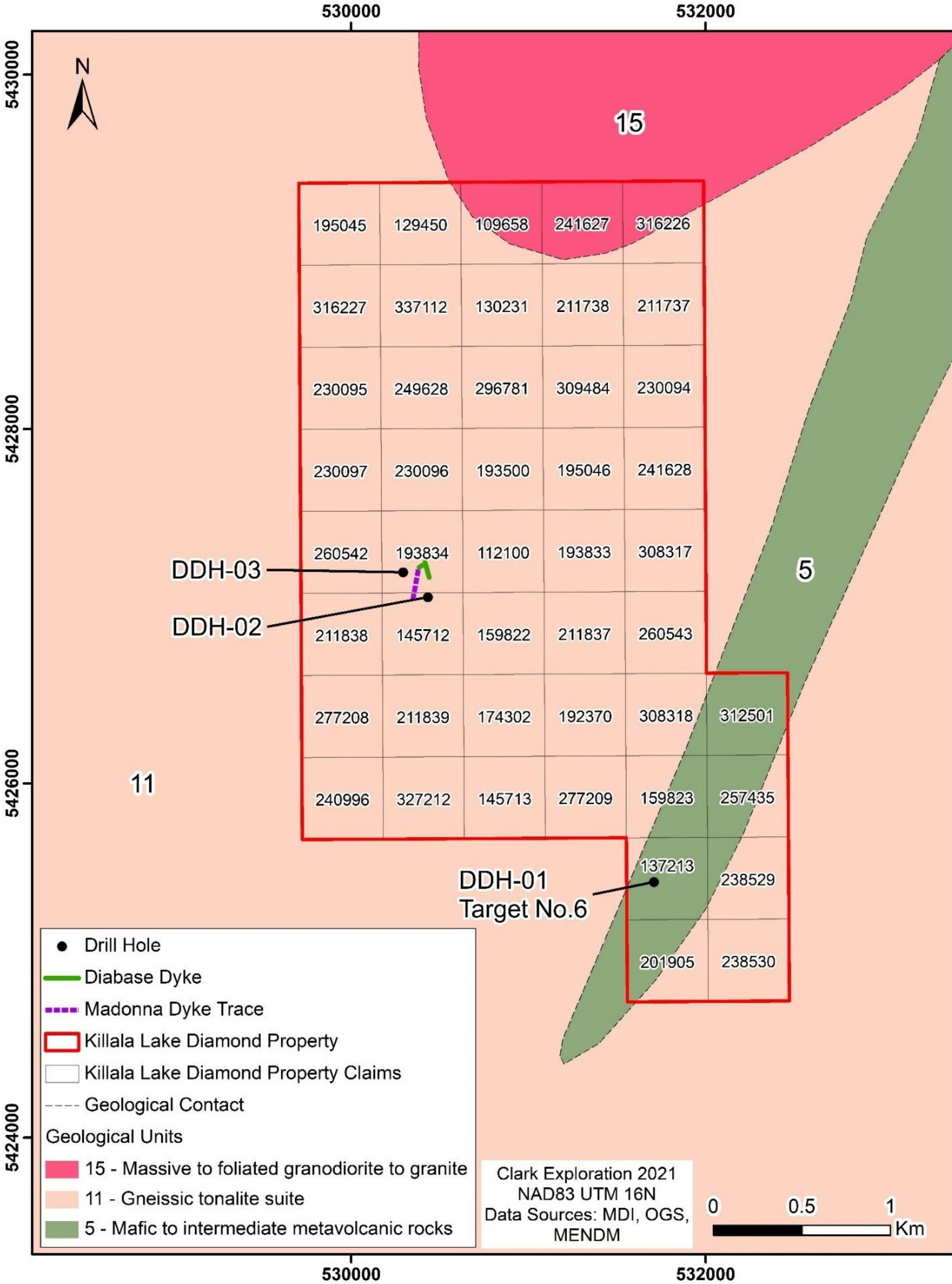
According to the OGS bedrock geology map, the property is dominated by a gneissic tonalite suite with a minor unit of mafic-intermediate metavolcanic rock in the southeast corner of the property and an intrusion of massive to foliated granodiorite to granite in the northern part of the property (Figure 5). The gneissic tonalite suite is probably part of the Little Pic River Pluton and the metavolcanic rock is probably an extension of the Schreiber–Hemlo greenstone belt (Magnus, 2019). Work conducted on the Killala property confirms that the area is underlain predominantly by granitoid rocks including gneisses, and lesser metavolcanic and metasedimentary units. Younger diabase and lamprophyre dykes intrude these sequences (Verley, 2009).

The Madonna Dyke (Figure 5) outcrops at two locations approximately ten meters apart (Kozlowski, 2016). The more southern outcrop ranges in width from 1 to 1.75 m, striking 009 and dipping 065. The dyke pinches to the south and swells to the north. The other outcrop is located is approximately 1.5 to 2 meters in width and 2 m long. The dyke intrudes into a host consisting of feldspar and quartz. The contact is sharp on both sides of the dyke. A diabase intrusion is located to the east of the outcrops within close proximity (Kozlowski, 2016) (Figure 5). The dyke outcrop is described as a hypabyssal rock with medium-to fine-grained phenocrysts comprising approximately 45% to 55% modal abundance, set in a very fine-grained dark green to black groundmass. The majority of the phenocrysts are rounded and range in size from approximately 1-10 mm. Phenocrysts are dominated by pseudomorphed olivine, green pyroxene, and black oxide minerals rimmed by carbonate (Kozlowski, 2016). The phenocrysts appear to be larger in size near the centre, towards the northern end of the intrusion; and smaller in size towards the southern end, where the intrusion pinches out. The surface of the intrusion is marked by an orange-brown weathered edge that ranges from approximately 1-2 cm thick (Kozlowski, 2016).

The Madonna Dyke is classified as an Alnöite ultramafic lamprophyre (Mitchell, 2015; Kozlowski, 2016). Texturally, the Madonna Dyke is a phenocrystal dyke of hypabyssal facies with rare olivine macrocrysts and devoid of mantle xenoliths, typical of an ultramafic lamprophyre (Kozlowski, 2016). Aluminous diopside, amphibole, and calcite after melilite are common minerals of the Madonna Dyke that are absent in kimberlites but are common in ultramafic lamprophyres. Calcite after melilite crystallization suggests Alnöitic affinity. The only currently known melilite-bearing rock type to host diamonds is an Alnoite (Mitchell, 1995, Kozlowski, 2016). The Madonna Dyke shows some textural similarities to kimberlites but the presence of calcite after melilite is a defining feature of an Alnöite. The Madonna Dyke is unique in that it contains late-stage calcic amphiboles, not noted in other alnöitic occurrences (Mitchell, 2015)

The Madonna Dyke, the Paralamproite occurrence (12 km west of the Madonna Dyke), and “Target No. 6” (approximate location in Figure 5) occur near lineament intersections that could represent planes of crustal weakness that may have acted as pathways for the ascent of mantle-derived magma. Spinel-group mineral compositions of the Madonna Dyke follow the Magmatic Trend #2 - the Titanomagnetite Trend on the reduced spinel compositional prism. This trend is defined by a spinel compositional range from aluminous magnesian chromites to titanian magnesian chromites to titanian chromites to members of the ulvospinel-magnetite series. A hiatus within the trend outlined by the Madonna Dyke spinel is infilled by plotting of “Paralamproite" Occurrence spinel on the same reduced spinel compositional prism. More extensive mineral chemistry and U-Pb dating on apatite should be completed before discerning a possible magmatic relationship between the “Paralamproite" Occurrence and the Madonna Dyke (Kozlowski, 2016).

Figure 5: Property Geology



6.3 MINERALIZATION

The emplacement of intrusive kimberlitic or alkaline rocks is often associated with large-scale structural zones, such as the Midcontinent Rift and the Trans-Superior Tectonic Zone transecting the Killala Lake Diamond Property region, suggesting that the area may be favourable for diamond deposit exploration. Exploration on the Killala Lake Diamond Property has proven that a diamond bearing-lamprophyre is present.

In 2009, a 1205 kg sample of the Madonna lamprophyre dyke was collected from cell 193834 and sent for analysis at Kennecott Exploration Canada Inc mineral processing laboratory in Thunder Bay. The sample returned a total of 66 diamonds including 21 stones greater than 0.5 mm in size and 8 stones greater than 0.85 mm in size (Verley, 2009). Another 86 kg rock sample was collected in 2013 from cell 249628, north of the main Madonna Dyke outcrop, was sent for diamond fusion Rio Tinto's Thunder Bay Mineral Processing Lab and returned 5 micro diamonds (Wahl, 2014). Two (2) 18 kg till samples were taken from “Target No. 6” on the southern end of the current cell 137213 (approximate location in Figure 5). These samples returned two (2) G9 garnets, an important indicator for diamond bearing kimberlites. Additionally, it was highlighted that a yellow diamond was found in a hand sample taken from the Madonna Dyke (Wahl, 2017).

The Madonna dyke is classified as an Alnöite ultramafic lamprophyre, suggested by calcite after melilite crystallization (Mitchell, 2015; thesis). The only currently known melilite-bearing rock type to host diamonds is an Alnoite (Mitchell, 1995 as cited by Kozlowski, 2016)

7.0 HIGH-RESOLUTION DRONE MAGNETIC SURVEY

A high-resolution drone magnetic survey was carried out by SUMAC Geomatics Inc of Thunder Bay, ON in April, 2020. There were two survey blocks flown, one with 25m line spacing totalling 66 l-km and a second block with 50m line spacing totaling 87 l-km. The two blocks were flown to provide a higher resolution dataset for areas that contained the known Madonna Dyke occurrences. Details on the survey and instrument specifications are outlined in the following section.

7.1 Drone Magnetic Survey Instruments

The RPAS Magnetometer

GEM Systems GSM-35U Optically Pumped Potassium Magnetometer

- Sensitivity: 0.0002 nT @ 1 Hz
- Resolution: 0.0001 nT
- Absolute Accuracy: +/- 0.1 nT
- Heading Error: + / – 0.05 nT
- Dynamic Range: 15,000 to 120,000 nT
- Gradient Tolerance: 50,000 nT/m
- Sampling Intervals: 1, 2, 5, 10, 20 Hz
- Operating Temperature: -40°C to +55°C

Integrated GPS Module

- GPS 0.7m resolution

Integrated Lightware SF-11Laser Altimeter

- Range: 0.2 - 100 meters (natural targets), 2 - 40 meters (moving water)
- Resolution: 1 cm
- Update rate: 20 readings per second
- Accuracy: ±0.1 meter (70% reflective target at 20 °C)
- Power supply voltage: 5.0 V ± 0.5 V DC
- Power supply current: 200 mA (maximum)
- Outputs & interfaces: Serial, I2C (up to 400 kHz) & analog with maximum latency of 65 ms
- Connections: Plug & socket, micro USB
- Laser power: 20 W (peak), <15 mW (average), Class 1M
- Optical aperture: 51 mm
- Beam divergence: 0.2°
- Operating temperature: 0-40 °C
- Weight: 35 g (excluding cables)

Stationary Base Magnetometer

GEM Systems GSM-19 Overhauser Total Field Magnetometer

- Sensitivity: 0.022 nT @ 1 Hz, (0.015 nT option)
- Resolution: 0.01 nT
- Absolute Accuracy: +/- 0.1 nT
- Dynamic Range: 20,000 to 120,000 nT
- Gradient Tolerance: Over 10,000 nT/m
- Sampling Intervals: 60+, 5, 3, 2, 1, 0.5, 0.2 sec
- Operating Temperature: -40°C to +50°C

Remotely Piloted Aerial Systems (RPAS)

- DJI Mavic 2 Pro
- DJI Wind 4

In total, there are six parameters that are collected from the GSMP-35U during flight. These include the magnetometer time, total magnetic field reading, magnetometer lock number, heater value, field reversal value, and signal quality value, respectively. The sampling rate of the six parameters throughout the survey was 10 Hz. GPS position, Easting and Northing is provided via the integrated GPS module. DJI Mavic to Pro provides visual data, video and/or imagery to confirm terrain, elevations, and obstacles across the survey area. The Magnetometer payload is carried on the DJI Wind 4.

The Base Station Magnetometer (GEM Systems GSM-19) provides a measurement of the total magnetic field, signal quality value, and GPS derived time to allow for the correction of diurnal magnetic fluctuations in post processing. The sampling rate of the base station parameters throughout the survey was 0.33 Hz.

7.2 INSTRUMENT AND SENSOR LOCATIONS

Magnetometer payload is mounted to the RPAS frame and powered with independent power source, as is demonstrated in Figure 6. The magnetometer sensor (where the measurement is taken) was suspended below the drone on a 5m tether, as is demonstrated in Figure 7. Use of the 5 m tether to suspend the magnetometer sensor ensures the magnetometer is outside the sensitivity threshold of the electromagnetic interference generated by the RPAS. The payloads are mounted in such a manner as to ensuring the load is balanced and flight characteristics of the RPAS are safely maintained.

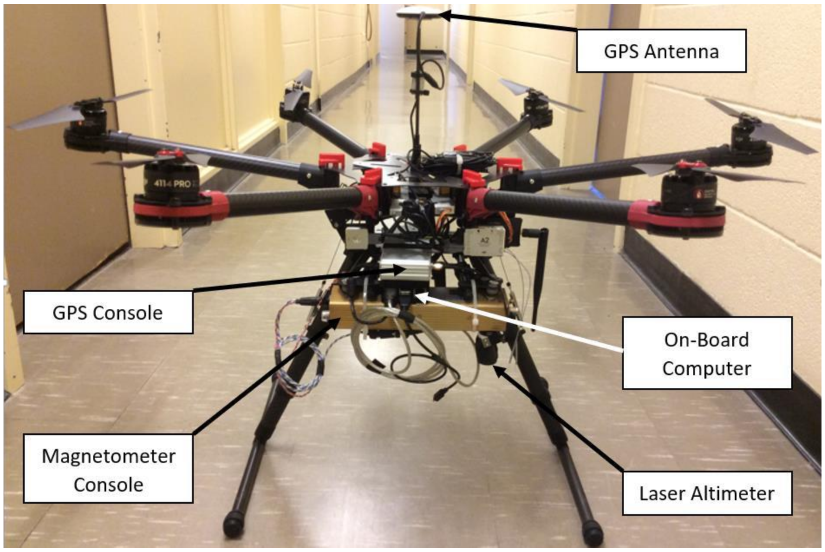


Figure 6: Mounting of magnetometer and instruments on RPAS

Figure 7: Magnetometer sensor suspended below platform with a 5 m tether

7.3 Calibration And Quality Control Methods

Both the GSMP-35U (potassium vapour magnetometer) and the GSM-19 (Overhauser proton precession magnetometer) are absolute magnetometers that use manufacture derived internal calibrations based on known physical constants (Larmor Frequency and Proton Precession Frequency, respectively) to derive the scalar component of the ambient magnetic field at the location of the sensor. When the magnetometers are powered on, they run through a series of internal calibration checks to acquire and display the magnitude of the external magnetic field and a signal quality parameter. Both magnetometers were in good working order and passed the operator inspection to verify that the displayed total magnetic field value matched expected values for the survey area. Additionally, both magnetometers output a signal quality parameter which can be used to monitor the quality of the magnetic data throughout the survey.

7.4 GROUND CONTROL

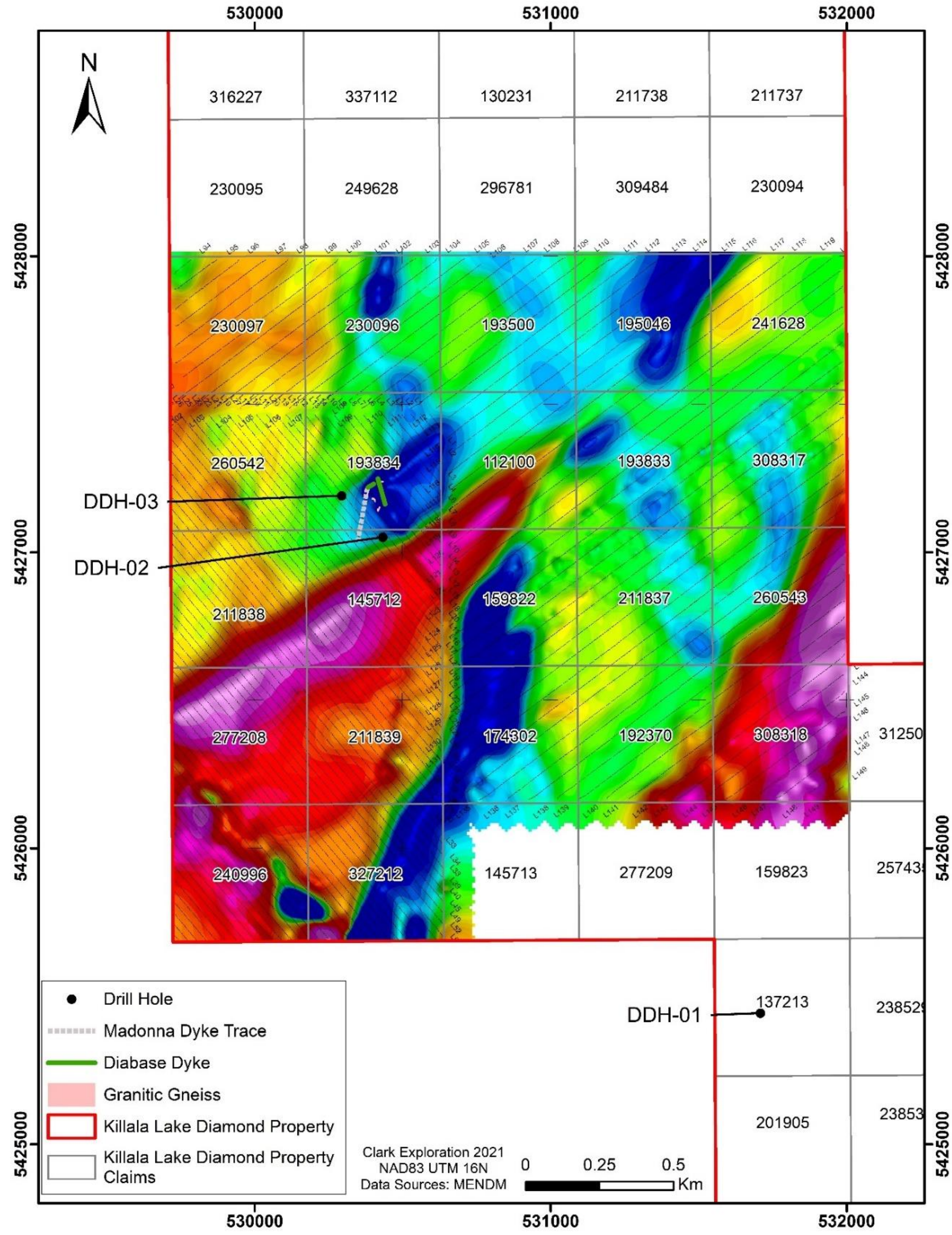
Survey planning is conducted in the office using DJI mission planning software and readily available imagery for the project site. Within the software, flightline distances to a maximum of 1km, altitude, 40m, interline spacing, 25m, and flight speed 5m/sec. are set. Overlaying the recent imagery, flightlines, take off and landing sites, and hazards are identified. Mission planning files are then uploaded to the Litchi autonomous flight application/controller. The Litchi autonomous flight application allows terrain following using available digital surface models (DSM).

Prior to conducting magnetic survey, a reconnaissance flight(s) is conducted using the DJI Mavic2 Pro. From this flight terrain conditions are confirmed, and possible obstacles identified. Flight missions are modified if required.

7.5 DATA CORRECTIONS AND PROCESSING

Sumac applied a general data correction step to the gathered survey magnetic data which included removing data omission gaps (unlocked magnetometer data) and isolating flightlines (removing turns). Removing data omission gaps involves filtering the magnetometer lock number and removing magnetic field readings where the magnetometer is not “locked” onto the ambient magnetic field. After this filtering step, the inaccurate total magnetic field measurements are removed, leaving valid measurements. After these corrections were complete Sumac provided both the filtered and raw survey data to Clark Exploration for further processing. Clark Exploration sent this data to St. Pierre Geoconsultants Inc. for further processing and data leveling (Figure 8).

Figure 8: Drone Magnetic Survey Results



8.0 INTERPRETATION AND CONCLUSIONS

The drone magnetic survey performed on the Killala Lake Diamond Property provided high resolution magnetic data for the area of the Madonna Dyke showing. However, it is not immediately evident from the Total Magnetic Intensity (TMI) whether there is a continuation of the lamprophyre dyke.

9.0 RECOMMENDATIONS

The company should carry out further interpretation of the drone magnetic data that was collected as the quality of the data collected was poor. It is also recommended that the company perform further drilling on the showing to determine the extent of the dyke as well as to provide enough material to send for a bulk sample to determine the quantity and quality of diamond present.

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11.0 CERTIFICATE

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CERTIFICATE OF QUALIFIED PERSON

I, Jolee Stewart G.I.T. (10879) hereby certify that:

1. I am a consulting geologist-in-training with an office at 941 Cobalt Crescent, Thunder Bay, Ontario.

2. I graduated with the degree of Honours Specialization in Geology - For Professional Registration from Western University, London, Ontario in 2019. I have worked on gold projects in Northwestern Ontario.

3. “Assessment Report” refers to the report titled “Assessment Report on the Killala Lake Diamond Property, Thunder Bay Mining Division, Northwestern Ontario”, dated December 2, 2021.

4. I am a registered as a Geologist-In-Training (G.I.T) with the Association of Professional Geoscientists of Ontario (108790).

5. I am the author of this report and responsible for sections 1-9 and 12 of the assessment report.

6. As of the date of this certificate, and to the best of my knowledge, information and belief, the Assessment Report contains all scientific and technical information that is required to be disclosed to make the Assessment Report not misleading.

Dated this 18th day of January 2022.

“Jolee Stewart”