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Technical Report for MNDM Assessment Purposes, 2022 Airborne Geophysical Survey

Echo Property

Echo Township, Patricia Mining Division,
Ontario, Canada

Prepared For:

Caitlin Jeffs

Prepared By:
Leah Clapp & Jordan Quinn

Contents

1 Introduction

The Echo Property consists of 54 mining claims within the Echo Township in the Patricia Mining Division. The property is fully owned by Caitlin Jeffs and located off a logging road approximately 37 km southwest of Sioux Lookout.

Caitlin Jeffs contracted Fladgate Exploration Consulting Corporation ("**Fladgate**") to conduct an unmanned aerial geophysical survey on the Werner Lake property from June 29- July 4 2022. Fladgate provided all the required geological, geotechnical, and sub-contractor services on the program described herein. The program consisted of 46 Northwest-Southeast flight lines spaced at 50m and 12 Northeast-Southwest tie lines spaced at 200m totaling 47 flown line kilometers. The survey was performed in order to map the magnetic signature of the underlying geology.

The results of the survey indicate the presence of multiple Northeast-Southwest trending magnetic anomalies. Subsequent and more detailed geophysical surveys are recommended to enhance the boundaries and locations of magnetic anomalies on the property.

2 Terms of Reference

This report was prepared at the request of Michael Thompson for the use of filing assessment as required under the Ontario Mining Act. Unless otherwise noted, Universal Transverse Mercator ("UTM") coordinates are provided in the datum of NAD83 Zone 15.

3 Disclaimer

The author disclaims responsibility for portions of the current report that rely on information from historic assessment files and government maps and reports which may not have been prepared in compliance with current standards.

4 Property Description and Location

The property covers Archean volcanic and intrusive rocks in Echo Township in the Sioux Lookout area of Ontario. The property consists of 16 Mineral Leases and 14 mineral claims covering a total of 1412.6 hectares. All claims and leases form a contiguous block. The status and area of individual claims is shown in Table 1.

The property is located on map sheet 52F16 (50,000 sheet) of the National Topographic System (NTS). The general location is shown in Figure 2. The claims and leases making up the property are shown in Figure 1.

Table 1 – Echo Claims

Tenure ID	Township / Area	Tenure Type	Anniversary Date	Tenure Status	Tenure Percentage
555127	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555126	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555125	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555124	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555123	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555122	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555121	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555120	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555119	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555118	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555117	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555116	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555115	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555114	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555113	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555112	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555111	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555110	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555109	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555108	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555107	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555106	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555105	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555104	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555103	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555102	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555101	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555100	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555099	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555098	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555097	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555096	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555095	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555094	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555093	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555092	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555091	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555090	ECHO	Single Cell Mining Claim	2022-07-26	Active	100

555089	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555088	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555087	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555086	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555085	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555084	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555083	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555082	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555081	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555135	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555134	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555133	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555132	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555131	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555130	ECHO	Single Cell Mining Claim	2022-07-26	Active	100
555129	ECHO	Single Cell Mining Claim	2022-07-26	Active	100

Figure 1 – Echo Lake Property Claim Map

5 Access, Local Resources, and Infrastructure

Road access to the property is provided by the Kathlyn Lake Road, a gravel logging road leading from Highway #72. The logging road originates 37 kilometres southwest of Sioux Lookout towards Dinorwic. The property is about 9 kilometres from Highway #72, see Figure 2. The property is ideally situated for transportation routes. There is the trans-continental Canadian National Railroad (CNR) rail line about 30 miles north at Sioux Lookout at the end of Highway 72 and the Trans-Canada Highway and the Canadian Pacific Railway (CPR) mainline about 30 miles south along Highway 72. There is an abundance of water resources with numerous lakes and rivers. The property is in Echo Township, National Topographic System (NTS) 52F16.

Infrastructure on the property is limited to a logging road, Kathlyn Lake Road which provides access through the property. The road is in good condition and passable to light vehicles or heavy trucks. The mainlines of the CNR and CPR are within trucking distance of 40 miles or less north and south of Highway 72 since the Pidgeon property lies almost in between the two railways. The area is within a 330km radius of major mining centers such as Red Lake, Marathon, and Thunder Bay where mining equipment can be sourced and serviced. Thunder Bay has a port that can provide a shipping point by sea to European smelters and markets.

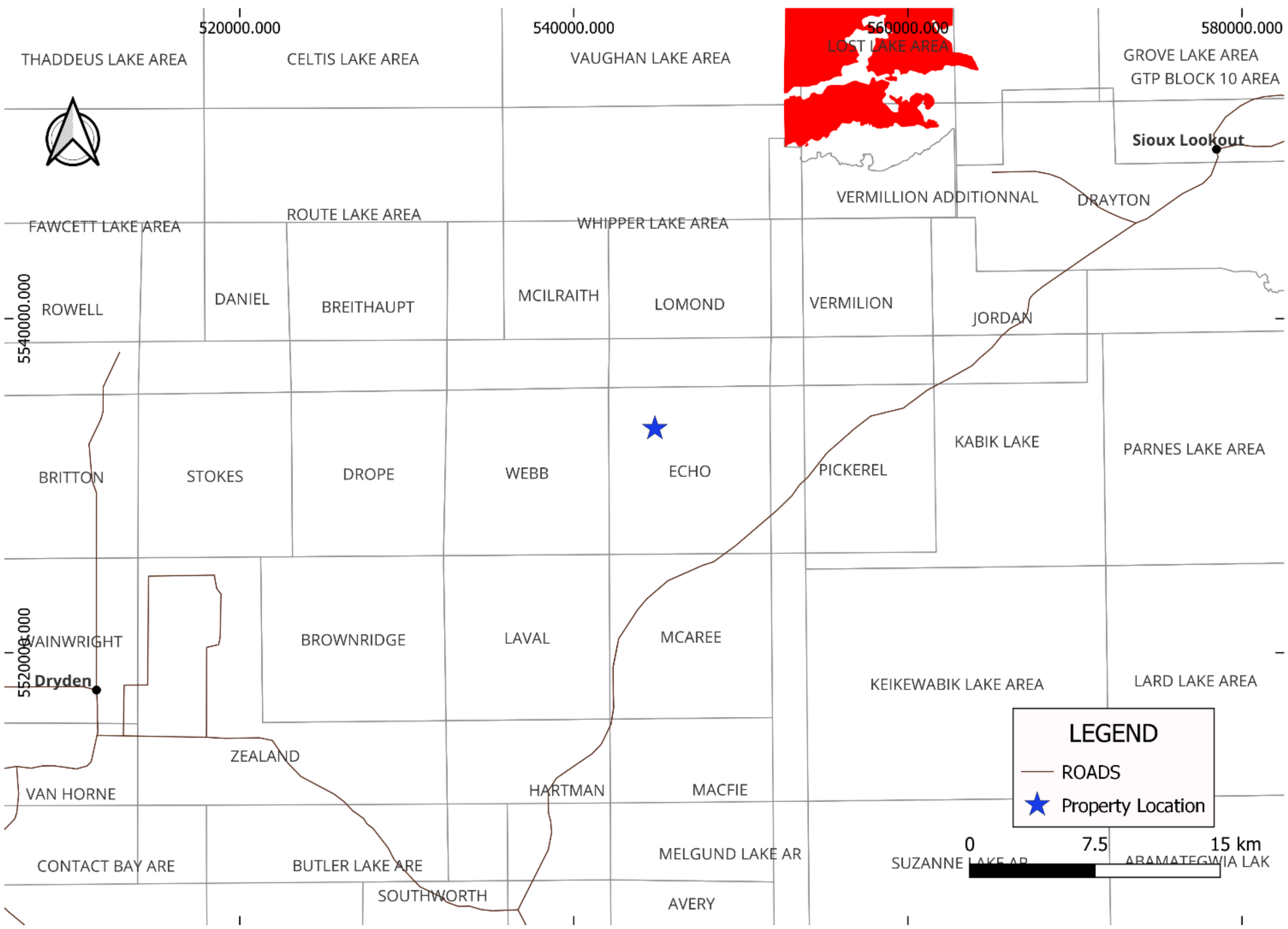

Figure 2 – Location Echo Property

6 Climate and Physiography

The climate is typical moderate continental type with cold winters and cool summers. The average daily temperatures at the Pidgeon property range between -18.6 degrees Celsius (°C) in January to 18.6°C in July. The average annual precipitation consists of 517.2 millimetres (mm) of rain and 204 centimetres (cm) of snow.

The topography of the property is of low relief with a rolling surface and elevations ranging from 370 metres to 440 metres above sea level. The terrain consists of low-lying areas covered by glacial clay and sand (originally formed by an arm of Lake Agassiz) and minor outcropping ridges of the felsic units (Bottrill, 1979a). It was originally heavily wooded with spruce, jackpine, birch and popular, but a significant amount of forest had been removed by logging according to (Bottrill, 1979a). Forest has since regrown over the logged areas, although logging is still evident by variations in tree height.

7 Geological Setting

The area surrounding Lateral Lake lies at the boundary of the Wabigoon sub-province and the English River subprovince (Page, 184). It consists of a sequence of Archean mafic to intermediate metavolcanics and metasediments which have been metamorphosed to upper greenschist-lower amphibolite facies, and minor intrusive bodies, including the east-west trending Lateral Lake Stock (Colvine & McCarter, 1977).

The metavolcanics consist of fine-grained chloritic units interbedded with medium- to coarse-grained amphibolitic units, interpreted as the edges and centres of mafic volcanic flows, respectively (Colvine & McCarter, 1977). They are foliated to Jocally schistose. The amphibolitic units are lensoidal with sharp to gradational contacts pinching out along strike and are most abundant east of Lateral Lake. Pyrite and pyrrhotite are common accessory minerals, constituting 1 % of the rock in places east of the stock.
Metaconglomerate units overlie the metavolcanics both north and south of the stock; they contain well rounded trondhjemite, chert, aplite and mafic volcanic clasts in a quartzfeldspar- biotite matrix (Colvine & McCarter, 1977). Metagreywacke units also overlie the metavolcanic sequence north and south of the stock, and are interbedded with them south of Gullwing Lake. Two quartzite units are interbedded with the metavolcanics, ranging from 3 metres to 30 metres thick.

The Lateral Lake stock extends approximately 12 kilometres from Gullwing Lake to a point east of Lateral Lake, and ranges up to 2.8 kilometres wide (Colvine & McCarter, 1977). The Pidgeon claims cover the eastern exposed end of the Lateral Lake stock. The stock has been described as a granodiorite with gradational contacts into quartz monzonite around the larger country rock inclusions. lt is coarse-grained and consists of quartz, albite plagioclase, orthoclase, mrcrocline and biotite, with minor chlorite, muscovite, carbonate, sericite, sphene, epidote and apatite (Bottrill, 1979a). Biotite is irregularly distributed with abundant large patches, and contains one to two percent epidote intergrowths. Magnetite is ubiquitous, but pyrite is only common towards the eastern molybdenite occurrences.
Foliation varies from indistinct in the core to strongly foliated along the margins, as gneissic banding with granulations of phenocrysts (Bottrill, 1979a). The contact of the stock is concordant with the dip of the metavolcanics, varying from 45° on the southern side to as low as 4 ° at the eastern end and to 30° on the northern side. The stock forms a broad magnetic low with steeper gradients, suggesting steeper dips, along its southern side. There are also a series of local magnetic high in a belt around the edge of the intrusive. The stock has been reported to occupy the axial zone of a large anticlinal structure in the supracrustal rocks (Bottrill, 1979a).

Observations in 2008 and the magnetic data suggests the Lateral Lake stock in fact cross cuts volcanic and metasedimentary rocks. The gneissic banding in the stock is not conformable to the outer contact as previously suggested by Bottrill, 1979. Stripping of bedrock in 2008 over mineralization indicates that structures, mainly fractures and the orientation of compositional banding in the stock play a significant role in the localization of the molybdenum mineralization. The role of the stock margin and anticline must be re-examined in light of current observations.

The supracrustal rocks dip away from the stock, both to the north and south, and dips increase with distance from the stock. Colvine & Mccarter (1977) state "that the strong foliation in the stock is consistent with its development during the emplacement and cooling of the intrusion, which took place either during or after regional deformation". On the other hand, Bottrill (1979a) states that the stock's foliation is concordant with the surrounding metavolcanics, suggesting that it was originally a sill-like body that was intruded prior to the regional deformation and metamorphism.

Observations made during the work program by MPH suggest that Botrills statement in this regard is incorrect as the banding observed in the lateral lake stock intersects the surrounding volcanics at a significant angle (See Figure 4). The banding is also offset and warped by later fracturing that in large part controls molybdenum mineralization. Page (1984) determined that although some foliation may be synemplacement, the fabric is primarily tectonic in origin.

Aplitic sills of quartz monzonite and potassic feldspar-bearing pegmatites are concentrated towards the margins of the stock, and locally comprise up to 50% of the rock (Colvine & McCarter, 1977). The pegmatites contain quartz, potassic feldspar and muscovite and grade into quartz veins, and are best developed east of Lateral Lake. Both the pegmatites and aplitic rocks are generally associated with molybdenite occurrences. Veins of quartz, pegmatite and aplite are also common in the metavolcanic wallrocks. The stock also contains common altered xenoliths of supracrustal rocks. Mapping of the stripped area completed in 2008 casts serious doubt on the idea of aplitic sills or dikes. Although the general appearance in drill core gives the impression of pegmatites or aplite, these observations are probably better explained as veins developed in fracture sets flanked by a succession of coarse to fine potassium altered granite. The term pegmatite was used in drill logs throughout the 2007 and 2008 diamond drilling.

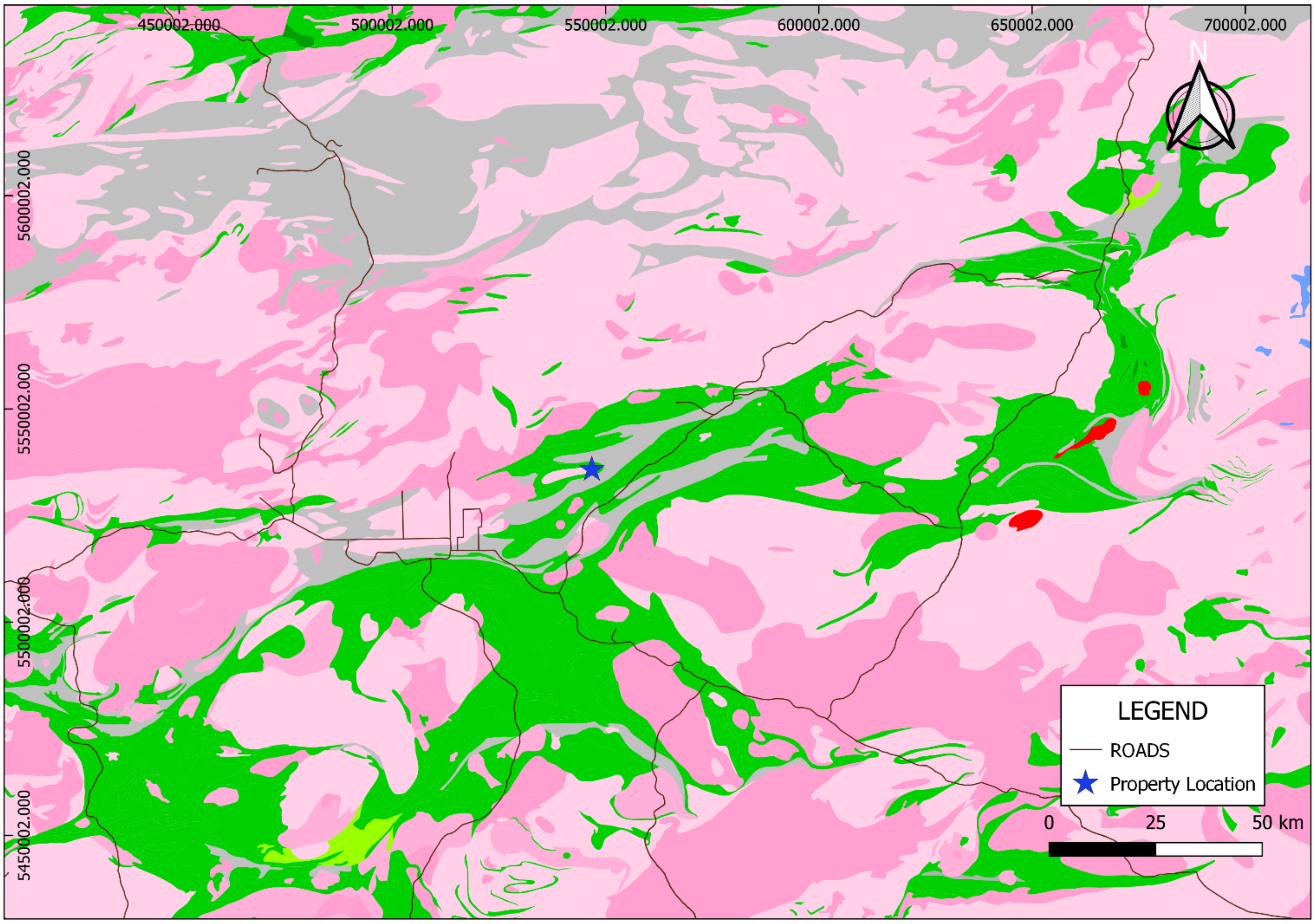

Figure 3 – Regional Geology

8 History of Exploration on the Property

Exploration history is based off previous exploration done on property in which these claims were included. Not necessarily these claims only.

Year	Description
1906	Molybdenum was first discovered in a pegmatite south of Gullwing Lake by C.D. Coates.
1946	Molybdenite occurrences were discovered by the Ontario Department of Mines at the east end of Lateral Lake.
1950	Claims staked by G.L Pidgeon of Wabigoon.
1954	Claims optioned to Detta Minerals Ltd (Detta), who then drilled two sub horizontal holes totalling 107 metres, drove a 35-metre adit and collected a 115 kilogram bulk sample for metallurgical tests.
1956	Ground adjoining the Pidgeon property was held by AO Lantz, who drilled two holes totalling about 80 metres.
1957	Pidgeon Molybdenum Mines Ltd. was incorporated to take over holdings of Pidgeon, Lantz and Mid-North Engineering Services Ltd. to form a 21-claim block
1957-1958	Rio Tinto Canadian Exploration Ltd. (Rio Tinto) optioned the property from PMML. Drilled 21 holes totalling 2,348 metres. Indicated a possible 568,000 tons at 0.57% MoS_2, open at both ends to a depth of 60 metres (Rockingham, 1961).
1958	Decoursey Brewis Minerals Ltd (DBM) drilled five holes totalling 612 metres along the south contact of the Lateral Lack Stock, north of Moly Lake.

Year	Description
1963	Denison Mines Ltd (Denison) drilled eight holes totalling 858 metres west of the Pidgeon property.
1965-66	Rio Algom Mines Ltd. (Rio Algom) completed a magnetometer survey and drilled 29 holes totalling 3,474 metres to prove 1 million tons at 0.50% MoS2. Resulted in a reserve of 416,000 tons at 0.57% MoS2 to 60 metres vertical and450 metres strike length from 23 parallel veins averaging 2.35 metres in width, down to 61 metres.
1977	Lateral Lake stock was mapped by the Ontario Geological Survey, AC. Colvine and P. Mccarter.
1978-79	The Gullwing Lake AEM project resulted in two linear anomalies southwest of the property. In 1979 Rio Algom re-evaluation of the PMML files by T.J. Bottrill indicated the deposit had a substantial potential for an economic, large tonnage, low grade, open pit operation.
1979-80	Rio Algom performed line-cutting, IP, VLF and magnetics surveys. Drilled 27 holes totalling 3, 710 metres. Analysis of capital and operating costs by Strathcona Mineral Services Ltd.
1980	Strathcona Mineral Services completed a resource estimate that defined an open pit minable resource of 9 million tonnes grading 0.096% molybdenum. This estimate is not considered compliant with standards of NI 43-101 however it is considered reliable and significant for historical purposes.
1981	Rio Algom drilled three holes totalling 352 metres.

Year	Description
2007	Wardrop Engineering Inc. completed a resource estimate for MPH Ventures Corp. This work concluded there was an inferred resource of 8.5 million tonnes at 0.099% molybdenum. This estimate is compliant with standards of NI 43-101.

9 Current Program

From June 29th to July 4th, 2022, a drone magnetic survey was carried out on the Echo Lake property. The survey consisted of 46 Northwest-Southeast flight lines spaced at 50m and 12 Northeast-Southwest tie lines spaced at 200m (**Figure 5**). The height of the survey was 50m and the total line kilometres flown were 47 km. **Table 2** summarizes the total line kilometers flown per claim on the Echo Lake property. The goal of the survey was to map the magnetic signature of the underlying geology.

Table 2 – Distribution of Work by Mining Claims

Claim #	Line Kilometers Flown
555126	0.8
555127	4.9
555097	5.1
555098	5.3
555099	5.4
555100	5.6
555101	5.6
555102	3
555129	1.4
555134	5.4
555130	4.5
TOTAL	**47**

Universal Ground Control Software (UgCS) was used in planning the drone survey. Flight lines were planned as perpendicular as possible to the known underlying geology and at a flight speed of 7.5 m/s.

The principle geophysical sensor used was a Gem Systems Canada GSMP-35U potassium vapor sensor mounted on a UAV platform. A GSM-19 Overhauser Magnetometer base station was used in conjunction with the UAV magnetometer. General specifications of both magnetometers can be found in Appendix 1 of this report: Instrument Specifications.

Fladgate used the DJI Matrice 600 Pro UAV to complete this survey. Specifications of the UAV used can also be found in Appendix 1 of this report.

An aerial towable man lift was used to gain line of sight above the tree line to be in compliance with Federal Aviation regulations.

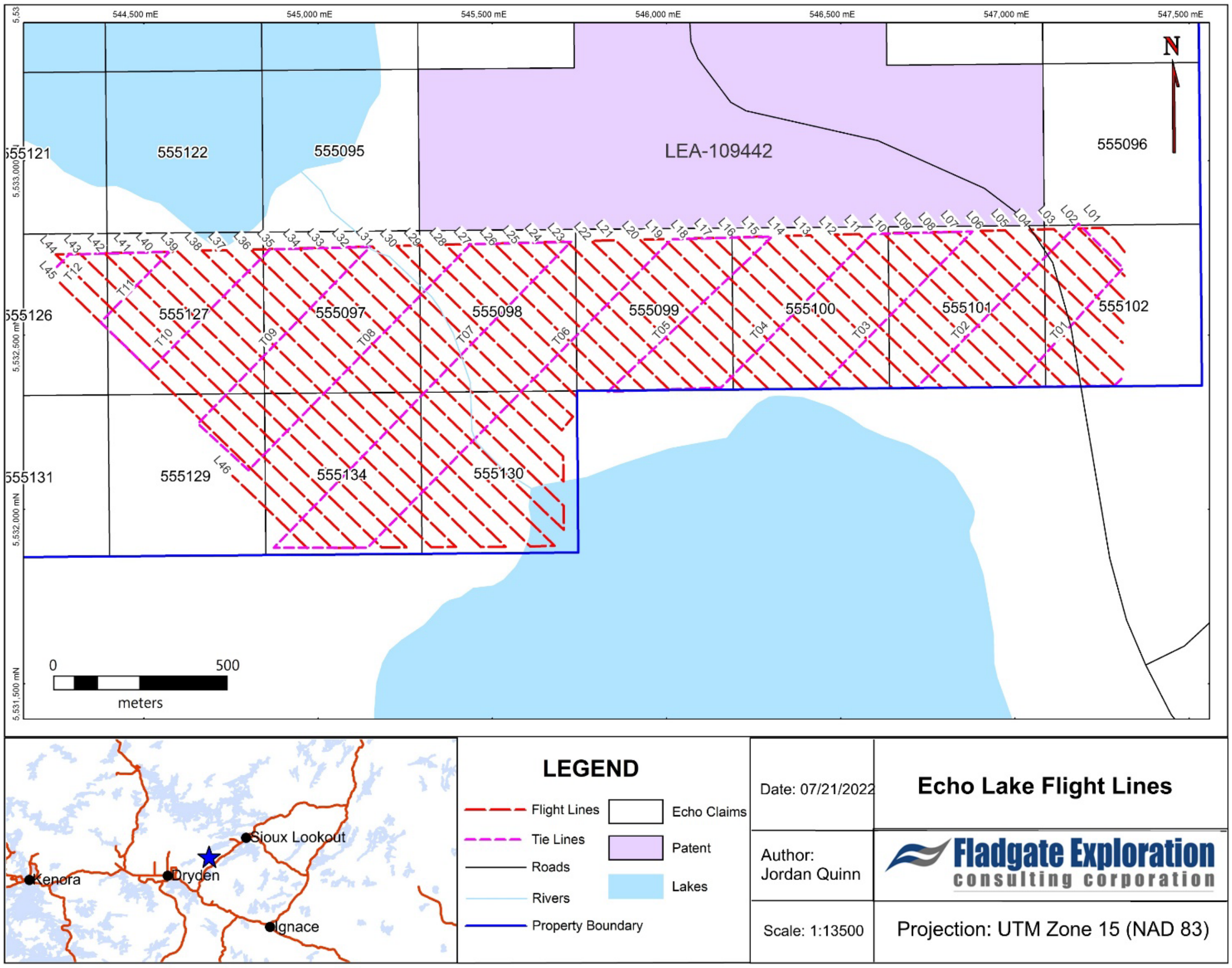

Figure 4 – Map of Echo Lake Drone Survey

9.1 Personnel

Field operations were supervised and all technical staff was provided by Fladgate and began with logistics and flight planning on June 29, 2022.

Table 3 – Personnel Log

Name	Working Title	Responsibilities	Dates on Project
Jordan Quinn	Project Geologist	Mobilization, Pilot, Drone route planning, Demobilization, Processing Geophysics/Map Creation, Report writing	June 29 – July 4, 2022; July 18 – 22, 2022

Name	Working Title	Responsibilities	Dates on Project
Shyla Anderson	Geotechnician	Mobilization, Assist in flight setup and operations, Demobilization	June 29 – July 4, 2022
Wulfric Harris-Stoertz	Geotechnician	Mobilization, Assist in flight setup and operations, Demobilization	June 29 – July 4, 2022

10 Data Filtering and Proccessing

Raw aerial magnetometer data was collected at a rate of 10 Hz while base station data was collected at a rate of 0.5 Hz. Total field and GPS UTC time was recorded with each data point which enabled diurnal corrections to be applied during subsequent data processing. An example of the raw data required to carry out the filtering and processing steps is given in **Table 4**.

Table 4 – Raw Geophysical Drone Data

UTC Time	Total Field Mag (nT)	Lock Status	Signal Strength	UTM Easting	UTM Northing	GPS Altitude (m)	Laser Altimeter (m)
144803.7	55377.1	1	309	454931.73	5366619.93	333	8.66
144803.9	55424.3	1	143	454931.71	5366619.89	333	9.24
144804	55441.3	1	504	454931.7	5366619.86	334	9.48
144804.1	55454.9	1	233	454931.7	5366619.87	334	9.79
144804.2	55465.0	1	152	454931.7	5366619.86	334	10.26
144804.3	55471.9	1	208	454931.7	5366619.85	335	10.58

The raw data was then imported into Oasis Montaj Software to be further processed. The steps involved in filtering the data are as follows:

1. A filter was applied to the data based on the lock parameter of the magnetometer. All values that were recorded that did not have a lock value of 1 were removed. The datapoints which remained after this filter were correctly oriented with the Earth's magnetic field.
2. The second filtering step was based on the geometry of the survey area. Data outside the defined survey area were removed. This included data that was gathered while the UAV was in flight to and from the takeoff/landing site and data that was gathered as the UAV takes corners at the end of survey lines. This step reduced edge effects and insured that sampling points were evenly distributed throughout the survey area.
3. A filter was applied that removed any data that was not collected at the programmed survey elevation. This step removes any data that was collected while the UAV was on the ground in between surveys or while the UAV was rising to the programmed survey elevation.

After the data was filtered, the data was processed for interpretation through the following steps:

1. The Earth's magnetic field was subtracted from the total magnetic field reading of the magnetometer. The resulting residual magnetic field data represents the component of the field that is caused by the subsurface.
2. The second processing step involved the subtracting of the observed diurnal variations from the residual magnetic field data. This was achieved by analyzing the change of the magnetic field in the base station measurements with time and correcting for this change.

3. The residual magnetic data was then leveled and a reduction to pole calculation was performed. The resulting data was then used for various interpolations using Oasis Montaj's gridding and mapping functions.

11 Results

The results of the survey are presented through a total field magnetic map. The data indicates a relatively noisy magnetic background to the east and a relatively quiet magnetic background on the west side of the survey area. The data from the west side of the survey area shows a definitive magnetic anomaly labeled in the map as "A1" and a possible second anomaly near the center of the survey area.

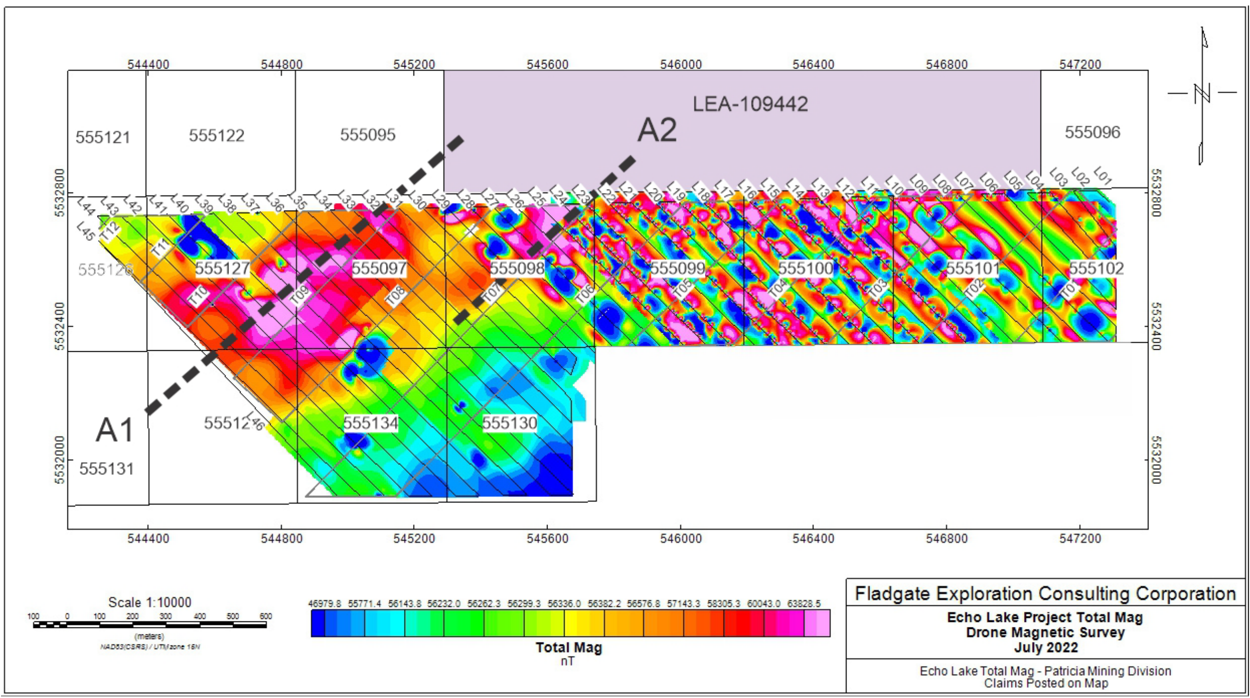

Figure 5 – Total Magnetic Field Map

Anomaly "A1" is presumed to be related to structures which produced the east-west trending Lateral Lake Stock as described in the geology section of this report. Abundant folding is also noted in the area, so this anomaly could also be related to a folding event. More detailed geophysics and mapping would be necessary to definitively describe the origin of these magnetic anomalies.

12 Conclusion and Recommendations

The magnetic survey completed over the Echo Lake property was successful in mapping magnetic anomalies and underlying geological trends. The northeast-southwesterly trending magnetic anomalies shown on the total magnetic field map are presumed to be derived from underlying bedrock geology or structures related to either the Lateral Lake Stock or a folding event.

It is recommended that another mag survey be flown at a lower elevation in conjunction with a detailed ground mag survey to more confidently confirm the location and origin of these anomalies

13 Expenses and Cost per Claim

Table 5 - Expenditures

	Date From MM/DD/YYYY	Date To MM/DD/YYYY	Item	Rate	Per Unit	Unit	Subtotal
Data Collection	06/29/2022	07/04/2022	Line Km's	$199	Km	47	$9,400
			Mob/Demob	$2,500	Day	1	$2,500
			Truck Rental	$100	Day	6	$600
			Truck Km's	$0.70	Km	761	$532.70
			Room & Board	$1,040	Week	1	$1,040
			Meals	$35	Meal	18	$630
			Aerial Lift Rental	$1,400	Week	1	$1,400
						Subtotal	$16,102.70
Processing & Report	07/18/2022	07/22/2022	Assessment Report	$700	Day	5	$3,500
			Mag Report	$800	Day	5	$4,000
						Subtotal	$7,500
						TOTAL	**$23,602.70**

Table 6 – Cost per Claim Breakdown

Claim #	Cost per Claim ($)
555126	401.75
555127	2,460.71
555097	2,561.14
555098	2,661.58
555099	2,711.80
555100	2,812.24
555101	2,812.24
555102	1,506.56
555129	703.06
555134	2,711.80
555130	2,259.83
TOTAL	**23,602.70**

14 Statement of Qualification

Leah Clapp, HB.Sc.
101 – 278 Bay St.
Thunder Bay, Ontario
Canada
Telephone: (807) 345.5380

CERTIFICATE OF THE AUTHOR

I, Leah Clapp, do hereby certify that:

1. I am an employee of Fladgate Exploration Consulting Corporation, the geological consulting firm tasked with this report.
3. I am a graduate of the Lakehead University (Hons. B.Sc., 2014).
4. I have practiced geology for 3 years in Northwestern Ontario, Canada.
5. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

Dated
Leah Clapp HB.Sc.

Jordan Quinn, B.Sc., P.Geo.
Fladgate Exploration Consulting Corporation
278 Bay St, Suite 101
Thunder Bay, Ontario
Canada
Telephone: (807) 345.5380
Email: jordan.quinn@fladgateexploration.com

CERTIFICATE OF THE AUTHOR

I, **Jordan Quinn**, do hereby certify that:

1. I am an employee of Fladgate Exploration Consulting Corporation, the geological consulting firm tasked with this report.
2. I am a member in good standing of the Association of Professional Geoscientists of Ontario (APGO #3151).
3. I am a graduate of Lakehead University (Hons. B.Sc., 2014).
4. I have practiced geology for 7 years in a variety of settings, mostly in Northwestern Ontario, Canada. I have specific experience in Archean lode gold deposits in Ontario, mostly working as both a production and exploration geologist at various gold mines throughout Ontario.
5. I have no previous involvement with the property that forms the subject of this Technical Report.
6. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
7. I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public.

Effective Date: July, 2022
Date of signing: July, 2022


____

Jordan Quinn, H.B.Sc., P.Geo. (APGO #3151)

15 References

Bottrill, T. (1979a). *Pidgeon Molybdenum Mines: review and assessment.*

Colvine, A., & McCarter, P. (1977). *Geology and Mineralization of the Lateral Lake Stock, District of Kenora.* Ontario Geological Survey.

Page, R. (184). *Geology of the Lateral Lake Area, District of Kenora.* Ontario Geological Survey, Open File Report No. 5518.

16 Appendix I – Instrument Specifications

GEM GSMP-35UA: Ultra Light-Weight Potassium Magnetometer

Magnetometer Specifications

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

Orientation

Sensor Angle: optimum angle 35° between sensor head axis & field vector.
Proper Orientation: 10° to 80° & 100° to 170
Heading Error: +/- 0.05 nT between 10° to 80°and 360° full rotation about axis.

Environmental

Operating Temperature: -40°C to +55°C
Storage Temperature: -70°C to +55°C
Humidity: 0 to 100%, splashproof

Dimensions & Weight

Sensor: 161mm x 64mm (external dia) with 2m cabling ; 0.43 kg
Electronics Box: 236mm x 56mm x 39mm; 0.46 kg
Option 1 cabling; .125kg
Option 3 light weight battery; .250kg

Power

Power Supply:18 to 32 V DC
Power Requirements: approx. 50 W at start up, dropping to 12 W after warm-up
Power Consumption:12 W typical at 20°C Warm-up Time: <15 minutes at -40°C

Outputs

20 Hz RS-232 output with comprehensive Windows Personal Computer (PC) software for data acquisition and display.

Outputs UTC time, magnetic field, lock indication, heater, field reversal, GPS position (latitude, longitude altitude, number of satellites)

Components

Sensor, pre-amplifier box, 2m sensor /pre-amplifier cable (optional cable 3-5m), manual & shipping case

GSM-19 Overhauser Magnetometer

Performance

Sensitivity: Standard
GSM-19 0.022 nT @ 1 Hz
GSM-19PRO 0.015 nT @ 1 Hz
Resolution: 0.01 nT
Absolute Accuracy: 0.1 nT
Dynamic Range: 20,000 to 120,000 nT
Gradient Tolerance: up to 10,000 nT/m
Samples at: 60+, 5, 3, 2, 1, 0.5, 0.2 sec
Operating Temperature: -40°C to +50°C

Operating Modes

Manual: Coordinates, time, date and reading stored automatically at up to 0.2 sec.
Base Station: Time, date and reading stored at 1 to 60 second intervals.
Remote Control: Optional remote control using RS-232 interface.
Input/Output: RS-232 using 6-pin weatherproof connector with USB adapter.

Memory - (# of Readings in millions)

Mobile: 1.4M
Base Station: 5.3M
Gradiometer: 1.2M
Walking Mag: 2.6M

Dimensions

Console: 223mm x 69mm x 240 mm(8.7x2.7x9.5in)
Sensor: 175mm x 75mm diameter cylinder (6.8in long by 3 in diameter)

Weights

Console with Belt: 2.1 kg Sensor and Staff Assembly: 1.0 kg

Matrice 600

Structure

Diagonal Wheelbase: 1133 mm
Aircraft Dimensions: 1668 mm x 1518 mm x 759 mm (Propellers, frame arms and GPS mount unfolded)
640 mm x 582 mm x 623 mm (Frame arms and GPS mount folded)
Package Dimensions : 620 mm x 320 mm x 505 mm
Intelligent Flight Battery Quantity: 6
Weight (with six TB47S batteries): 9.1 kg
Weight (with six TB48S batteries): 9.6 kg
Max Takeoff Weight: 15.1 kg

Performance

Hovering Accuracy (P-Mode, with GPS) Vertical: ±0.5 m, Horizontal: ±1.5 m
Max Angular Velocity: Pitch: 300°/s, Yaw: 150°/s
Max Pitch Angle: 25°
Max Speed of Ascent: 5 m/s
Max Speed of Descent: 3 m/s
Max Wind Resistance: 8 m/s
Max Flight Altitude above Sea Level: 2500 m
Max Speed: 18 m/s (No wind)
Hovering Time (with six TB47S batteries)* No payload: 35 min, 6 kg payload: 16 min
Hovering Time (with six TB48S batteries)* No payload: 40 min, 5.5 kg payload: 18 min

* The hovering time is based on flying at 10 m above sea level in a no-wind environment and landing with 10% battery level.

Remote Controller

Operating Frequency:

- 920.6 MHz to 928 MHz (Japan)
- 5.725 GHz to 5.825 GHz
- 2.400 GHz to 2.483 GHz

Max Transmission Distance (unobstructed, free of interference) :
- FCC Compliant: 3.1 miles (5 km)
- CE Compliant: 2.1 miles (3.5 km)

EIRP:
- 10 dBm @ 900 M/li>
- 13 dBm @ 5.8 G
- 20 dBm @ 2.4 G

Video Output Port: HDMI, SDI, USB
Dual Users Capability: Master-and-Slave control
Mobile Device Holder: Supports smartphones and tablets
Output Power: 9 W
Operating Temperature: 14° to 104° F (-10° to 40° C)
Storage Temperature:
Less than 3 months: -4° to 113° F (-20° to 45° C)
More than 3 months: 72° to 82° F (22° to 28° C)

Charge Temperature: 32° to 104° F (0° to 40° C)
Built-in Battery: 6000 mAh, 2S LiP
Max Tablet Width: 170 m

Propulsion System

Motor Model: DJI 6010
Propeller Model: DJI 2170

Battery

Model: TB48S
Capacity: 5700 mAh
Voltage: 22.8 V
Type: LiPo 6S
Energy: 129.96 Wh
Net Weight: 680 g
Operating Temperature: 14° to 104° F (-10° to 40° C)
Storage Temperature: Less than 3 months: -4° to 113° F (-20° to 45° C) More than 3 months: 72° to 82° F (22° to 28° C)
Charge Temperature: 41° to 104° F (5° to 40° C)
Max Charging Power: 180 W

Charger

Model: MC6S600
Voltage: Output 26.1 V
Power Rating: 100 W

17 Appendix II – Maps