GEOLOGICAL AND GEOPHYSICAL REPORT ON THE FEAGAN LAKE WEST GRAPHITE PROSPECT, NORTH-WESTERN ONTARIO

Porcupine Mining Division

Feagan Lake Area (42K02)

UTM Zone 16 (NAD83) 674860E and 5542710N

50° 00'39.7" N Latitude, 084° 33'33.9" W Longitude

Prepared for

Empire Metals Corp. 702-889 West Pender Street Vancouver, B.C., V6C 3B2 Canada

by

Bohumil B. Molak, PhD., P.Geo (BC) & Kevin Cool

Date: November 29, 2018

Table of Contents

 Summary 1. Introduction 1.1. Location and Access 1.2. The Claims 1.3. Topography, Vegetation, Climate and Local Resources History Geology Local Geology and Mineralization Exploration 2018 Field Program Conclusions and Recommendations Exploration Expenses Proposed Budget for the Recommended Work References Statement of Qualifications 	page 3 3 5 8 8 12 16 17 17 22 23 25 25 28
8. Statement of Qualifications	28 20
7. Statement of Quannearions	27

Figures

Fig. 1: Location of Feagan Lake West Graphite Prospect	4
Fig. 2: Feagan Lake West Graphite Prospect, Location Map	5
Fig. 3: Location Map of Cell Mining Claims	7
Fig. 4: A Revised Terrane Map for the Superior Province	11
Fig. 5: Geological Map with location of FLWGP and AAC	12
Fig. 6: Aeromagnetic Map with Location of FLWGP, AAC and West & East Pipes	14
Fig. 7: Location of Mag Anomalies in Nagagami River Area	15
Fig. 8: Helipad Locations	18
Fig. 8a:Helipad 1	18
Fig. 8b:Helipad 2	19
Fig. 8c:Helipad 3	19
Fig. 8d:Helipad 4	20
Fig. 9: 2018 Mag Anomaly at nT 160 Contour Overlap on Historic Mag Anomaly	22

Appendices

Appendix I: Geometrics MFAM Magnetometer Specifications	32
Appendix II: DJI Matrice 600 Pro Specifications	34
Appendix III: Base Station Magnetometer Geometrics G856AX Specifications	35
Appendix IV: Total Field Color Contours, Calculated IVD Magnetics, Flight	38
Path – Grid and Tie Lines	
Appendix V: Total Field Colorized Contours	40
Appendix VI: Feagan Lake West Graphite Prospect, Claim Map	42

SUMMARY

The Feagan Lake West Graphite Prospect ("FLWGP") is located within the Porcupine Mining Division, approximately 75 km west-northwest of Hearst in Ontario. The FLWGP claims were staked in 2013 and 2015 on behalf of Xyquest Exploration Corp. ("Xyquest"). A helicopter-supported drone magnetometer survey was conducted on the FLWGP claim by Zen Geomap Inc., in August 2018 and the results are described in this report.

1. INTRODUCTION

Xyquest retained the writers in August 2018 to prepare a geological background, to conduct a drone magnetometer survey on the FLWGP and to prepare a geophysical report for filing an application for assessment work credit. Zen Geomap Inc., ("Zen") accessed the property using a chartered helicopter from Helicopters Canada of North Bay and conducted the airborne survey on August 17 - 18, 2018 by a 2-man crew based out of Hearst, Ontario.

After acquisition in August 2013, Xyquest entered into a property purchase agreement with Bluenose Gold Corp. ("Bluenose"), whereby Bluenose would acquire a 100% interest in the FLWGP, subject to a 1% NSR in favour of the vendor. Upon TSX approval in October 2013, Bluenose issued the 1,500,000 common shares and negotiated an extension with respect to the \$20,000 cash payment. In 2015 Xyquest contracted a crew from Ontario to stake additional 16 claims adjoining the original claim block in the west and south. Upon completion of staking, FLWGP was comprised of 32 claim units covering an area of approximately 5.12 square kilometers (512 hectares). As a result of conversion from Legacy Claims to Map Cell Mining Claims, FLWGP is now comprised of 38 Map Cell Mining Claims.

The first writer of this report is a senior consulting geologist with Xyquest and a Professional Geoscientist (BC) with more than forty years of experience in mineral exploration. He conducted the fieldwork on FLWGP in 2015 and prepared a geological background for the present report. The second writer (a part owner of Zen Geomap Inc., hereafter "Zen") conducted the drone geophysical survey and prepared the geophysical portion of this report starting on page 17, under the heading "2018 Field Program".

For most parts of this report the writers relied on work of other experts, on the assessment reports and technical reports and on information available from the Ministry of Northern Development and Mines, Ontario ("MNDM") website. The information by other experts, who are not qualified persons for this project, is generally presented without comments and is to the best of writers' knowledge and experience correct and suitable for inclusion in this report. The sources of all information not based on personal examination are quoted in the References item. The claims description provided herein has been excerpted from the MNDM electronic application and relates to the status as of September, 2018.

1.1. Location and Access

The FLWGP is located within the Porcupine Mining Division in Ontario, on the topographic map 42K02, Feagan Lake (1:50,000) (Figs. 1, 2). The claim block lies 75 km in a straight line

west-northwest of Hearst and 27 km on a straight line north of the HW 11 intersection with the Nagagami River and about 2 km southwest of the Feagan Lake. The Lat/Long coordinates are 50° 00'39.7" N Latitude, 084° 33'33.9" W Longitude and the UTM coordinate of the centre of the claim block is 674860E and 5542710N, Zone 16 (NAD83).



Fig. 1: Location of Feagan Lake West Graphite Prospect.



Fig. 2: Feagan Lake West Graphite Prospect, location map (NAD83, Zone 16)

No drivable roads or trails are known to exist on and to the FLWGP, the access therefore is best by helicopter. In winter, the access is possible by a road branching off the HW 11 near the intersection with Nagagami River, and then northwards to a network of old forestry logging roads and/or ATV trails.

1.2. The Claims

The FLWGP is situated in a previously under-explored area. The claim block is comprised of 38 map cell mining claims, covering approximately 256 hectares (Figs. 2, 3). The claim status as of September 9, 2018, based on the MNDM web site, is as follows:

	Mi	ining Claim List - Feagan Lake	West Graphite Prospect		
				(\$)	(\$)
				Work	Total
Claim Number	Due Date	Recorded Holder	Claim Type	Required	Reserve
155196	22-Jul-19	Xyquest Exploration Corp	Boundary Cell Mining Claim	200	0
126660	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
323216	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
155195	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
190647	22-Jul-19	Xyquest Exploration Corp	Boundary Cell Mining Claim	200	0
286465	22-Jul-19	Xyquest Exploration Corp	Boundary Cell Mining Claim	200	0
286464	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
227920	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
190648	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
323217	22-Jul-19	Xyquest Exploration Corp	Boundary Cell Mining Claim	200	0
342289	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
135560	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
126661	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
323218	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
294577	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
286466	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
240063	22-Jul-19	Xyquest Exploration Corp	Boundary Cell Mining Claim	200	0
283342	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
200237	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
286467	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
227921	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
105736	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
105735	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
323219	22-Jul-19	Xyquest Exploration Corp	Boundary Cell Mining Claim	200	0
180759	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
180758	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
227923	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
306683	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
227922	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
286468	22-Jul-19	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
105737	22-Jul-19	Xyquest Exploration Corp	Boundary Cell Mining Claim	200	0
200238	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
236187	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
291404	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
183696	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
329146	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
213247	15-Dec-18	Xyquest Exploration Corp	Single Cell Mining Claim	400	0
147113	15-Dec-18	Xyquest Exploration Corp	Boundary Cell Mining Claim	200	0
38 Claims				13600	



Fig. 3: Location map, cell mining claims

1.3. Topography, Vegetation, Climate and Local Resources

The FLWGP is located within the Hudson Bay – James Bay Lowlands, a large, nearly flat area made up of bogs and fens. The claim altitudes range from about 140 to 150 m above sea level. The area is forested with mature stands of spruce and cedar and the ground is covered by nearly continuous moss with labrador tooth, and cedar and alder underbrush. The climate in the area is continental and typical of the north-western Ontario, with hot summers when the temperatures may rise to 25 - 35 °C and cold winters with temperatures dropping down to - 30 °C or lower. The annual precipitation ranges from 600 to 900 centimeters.

Railway, power and gas are located from thirty kilometers to seventy km from the claim boundary. The town of Hearst is the closest industrial centre that provides most services required to conduct mineral exploration.

2. HISTORY

The Nagagami River and Pitopiko Township and the Feagan Lake areas have been known for their potential to host nickel, copper, platinum group and rare earths mineralization associated with the intrusive rocks. Such intrusive rocks were indicated in the area by historical magnetic surveys and the drilling programs confirmed the presence of alkalic, mafic and carbonatite intrusions. More recent drillings intersected yet another, non-traditional mineralization associated with these intrusions – "hydrothermal" graphite. A brief history of the geophysical surveys and exploration is presented below

1959: Koulomzine and Brossard Ltd. conducted a ground magnetic and EM survey for Nagagami River Prospecting Syndicate in the area north of Fintry/Auden Townships. Three magnetic anomalies were detected and interpreted as the sulphide lenses and/or disseminated mineralization that could contain base metals. Drilling was recommended to test the EM anomalies (Koulomzine, 1959).

1961 - 1963: Algoma Ore Properties Limited contracted Hunting Survey Corp. to conduct airborne aeromagnetic surveys in the Nagagami River and Pitopiko Townships areas. The survey outlined a horseshoe-shaped anomaly made up of two low intensity anomalies, both covered by Paleozoic limestone. The anomalies were interpreted to be syenitic, gabbroic and/or carbonatite intrusions containing magnetite, sulphides, niobium and possibly columbium and other rare earth elements. A follow-up detailed ground magnetometer survey and diamond drilling were recommended.

1964 - 1967: Algoma Ore Properties Limited continued to explore the Nagagami River using a ground magnetometer survey. Based on the results, nine widely spaced holes (total 1484 m) were drilled and the core was sampled and tested for radioactivity. A petrographic study was

also made and the assays returned 0.02 to 0.04 % Cb₂O₅. The host rocks were classified as syenite, anorthosite and syeno-diorite with as much as 10-12% disseminated magnetite.

1968: Satellite Metal Mines Limited conducted a vertical force magnetometer survey in the Wataiabei River East Township about 15 kilometers east of the Kenogami River. One magnetic anomaly was detected but no further work was done.

1969: Keevil Mining Company surveyed the Hudson Bay Lowlands area (Squirrel River, Mammamattawa, English, Kingfisher and Drowning Rivers and Albany Forks) using a ground magnetometer. The survey was followed by diamond drilling, which intersected carbonatite and anorthosite intrusives with scarce calcite, quartz, pyrite and chalcopyrite mineralization. All other drill holes intersected mostly non-mineralized limestones and sandstones.

1974: Cedam Ltd. contracted Scintrex Surveys Limited to conduct an airborne magnetic survey to help interpret the geology of the claim area. A kidney shaped anomaly was detected and interpreted to be caused by the basic intrusives, metasediments and metavolcanics with small concentrations of magnetite (Klein, 1974).

1978: Shell Canada Explorations Ltd. drilled a single hole within the Burrell Township. The core was made mostly of metasediments and some tuffs with minor pyrite and pyrrhotite and an interval of graphitic syenite breccia was found. No sampling and chemical analysis were reported.

1999: The Ontario Geological Survey (OGS) released aeromagnetic geophysical maps for the Hudson Bay and James Bay Lowlands areas (Geophysical Data Set 1036).

2000: North Atlantic Nickel Corp. and Dumont Nickel Inc. drilled three diamond drill holes into magnetic anomalies detected on their Albany Project in the James Bay Lowlands area. One hole intersected anorthosite with pegmatoidal phases and minor disseminated pyrrhotite and chalcopyrite. However, no assay results were reported.

2001: East-West Resource Corp. explored for platinum group element (PGE) mineralization in the Township of McCoig area. The work included line cutting, magnetic, IP, and HLEM surveys (Daigle, 2001). Two intrusives believed to be magnetite alteration and a magnetic high with an uncertain source were detected and a drill program including four drill holes (total 641 meters) was conducted. A gabbro/norite body with 2% pyrrhotite, pyrite and traces of chalcopyrite were intersected, but no values of interest were reported.

2002 - 2003: Gowest Amalgamated Resources Ltd flew a helicopter borne magnetic and electro-magnetic survey over one claim group located in the North of Feagan Lake and North of

Rowlandson Townships. Nine magnetic anomalies were detected and interpreted to be caused by an intrusive root system. Gowest followed up by drilling of two drill holes (total 541 m), which intersected an iron formation and a layered magnetite-amphibolite-quartz gneiss. No core assay results were reported.

2008: OGS released the Precambrian Geology Map p. 3599 based on Aeromagnetic data (Stott, 2007-2008).

2010: Zenyatta Ventures Ltd. ("Zenyatta") contracted Geotech Ltd. to conduct airborne geophysical magnetic/electromagnetic VTEM survey, targeting the nickel, copper and platinum metal mineralization. A 43-101 compliant Technical Report on the Albany Project was prepared (Legault, 2010). The anomalies were drilled and the drill holes intersected two adjacent breccia pipes associated with graphite mineralization.

In 2013, Zenyatta contracted Crone Geophysics and Exploration Ltd. to conduct a surface timedomain EM (TDEM) survey on the Albany claims, targeting the drill-confirmed East and West graphitic breccia pipes. The TDEM ground survey had outlined the lateral extent of the two graphite breccia pipes. Subsequently Zenyatta drilled 63 holes totalling 26,011 m in the deposit area, of which 60 were used to estimate resources (Cox et al., 2015).



Fig. 4: A revised terrane map for the Superior Province (interpreted from aeromagnetic data, Stott, GM, Corkery, T, Leclair, A, Boily, M, & Percival, J., 2007).



Fig. 5: Geological map with location of FLWGP (adopted from Legault, 2010).

2015: Zenyatta contracted Rock Solid Resources Proven Advice to prepare a Technical Report on the preliminary economic assessment of the Albany Graphite Project, (Cox et al., 2015).

3. GEOLOGY

Geologically, the FLWGP falls within the Quetico Terrane of the Superior Province *sensu* Stott (2008). The property is situated south of the Gravel River fault, which separates it from the Marmion terrane (Figs. 4, 5) and close to the southern margin of the Nagagami River Alkalic Rock complex ("NRAC"), which was interpreted on the basis of aeromagnetic data (Sage, 1988). The Quetico Basin is made up of Paleozoic metasedimentary rocks. The NRAC and the

Albany Alkalic Complex ("AAC") are the most southern in a series of intrusions that define a north-northwest trending, arcuate band of inferred alkalic magmatism (Figs. 5, 6).

The NRAC appears to be composed of two ring-shaped sub-complexes with more mafic rims and more leucocratic cores (Fig. 5). The lithologic phases range from biotite granite to melanocratic syenite. Drill logs of Algoma Ore Properties Division of Algoma Steel Corp., described lithologies ranging from diorite to syenite (Assessment Files Research Office, Ontario Geological Survey, Toronto). Zenyatta described the AAC as a possible part of the NRAC (Cox et al., 2015).

The north structure is approximately 13 km in diameter and the south sub-complex is approximately 5 km in diameter. These anomalies have surface areas of approximately 130 km^2 and 20 km^2 , respectively.

The NRAC is composed of biotite granite and various facies of syenitea and is cross-cut by younger dykes, ranging from felsic to mafic in composition. The age of NRAC was reported to be Late Precambrian. Limestone, limey sandstone, mudstone, quartz sandstone and siltstone of Paleozoic age un-conformably overlie the NRAC and these are, in turn, overlain by glacial deposits of Pleistocene age, locally up to 55 meters thick. The top layer is made up of recent swamp and stream deposits.

The NRAC is cut by north to northwesterly trending Paleoproterozoic Matachewan dike swarms (ca. 2454 Ma; Heaman, 1988; Phinney and Morrison, 1988) and the east-northeasterly Kapuskasing dike swarm (ca. 2124-2170; Stott, 2008). Temporal reationships between dikes and the AAC are complicated, as dikes cut the complex and vice versa.

Preliminary petrography indicates that the graphite-hosting breccias range in composition from diorite to granite, and are generally described as "syenite". Graphite occurs both in the matrix, as disseminated crystals, clotted to radiating crystal aggregates and veins and along crystal boundaries, and as small veins within the breccia fragments. In addition to graphite, the matrix consists primarily of quartz, alkali feldspar, and plagioclase feldspar with minor phlogopite and amphibole and trace amounts of pyrite-pyrrhotite and magnetite.

Zenyatta commenced exploration on the Albany Project in 2010 and their original target was nickel, copper and/or platinum mineralization. A helicopter-borne versatile time domain electromagnetic (VTEM) and aeromagnetic (cesium magnetometer) surveys were flown and 22 EM and magnetic targets were identified. Two targets coined Victor and Uniform were drilled and the drilling on the latter led to the discovery of the Albany graphite deposit (Legault, 2010).



Fig. 6: Aeromagnetic map with location of FLWGP, AAC and East & West pipes (based on ODS Geophysical Dataset 1036).



Fig. 7: Location of mag anomalies in Nagagami River area; (based on OGS Aeromagnetic map 3890G, Constance Lake); XEC- Xyquest Exploration Corp.; MCR – Metal Creek Resources; BRKMNT - Brookmont Capital Management; KSMN – Kiesman; X-MET – X-Met Inc.; TAD – Tad Mineral Exploration Inc.

3.1. Local Geology and Mineralization

To the best of writers' knowledge, there are no rock outcrops within the FLWGP and no drilling was ever performed on the property. Therefore, local geology can only be inferred from the available geological, geophysical and terrane information, from maps and from analogy with the neighboring areas. Based on this information, the FLWGP is underlain by Paleozoic metasedimentary rocks that are part of the Quetico Basin and probably by Proterozoic intrusive rocks belonging to NRAC and AAC. The intrusive rocks have distinct magnetic response as shown on Figs. 6 and 7. FLWGP is situated close to the NRAC/AAC margin and on a historical magnetic low (Fig. 7), which probably indicates magnetite and/or pyrrhotite-deficient rocks.

The Zenyatta's East and West Pipes also occur near the NRAC/AAC margins and between historical magnetic lows and highs (Fig. 7).

The NRAC and AAC and other intrusions in the area are characterized by magnetic highs, which locally contain "pockets" of magnetic lows. Such setting may potentially indicate the occurrence of 'high purity' (hydrothermal) graphite. The known mineralization in the area has been described as occurring in the breccia pipes similar to kimberlite pipes (diatremes), having dimensions in the order of 200 m by 400 m. These pipes occur in clusters along structural corridors. The area has been largely ignored in the past as a result of poor outcrop exposure and younger Phanerozoic (460-360 Ma) cover rocks.

Adjacent to FLWGP is the Metal Creek Resources' Blackflake West Graphite Project, where a VTEM plus time domain airborne survey has recently been completed over the previously identified magnetic lows. The survey discovered a strong, highly conductive EM anomaly at least 1.6 kilometers long, associated with a mag low. The EM is located 7 kilometers west of the Zenyatta's East and West Pipes.

Zenyatta conducted the VTEM airborne geophysical surveys on the NRAC/AAC in 2010 and their original target was the nickel, copper and platinum metal mineralization. The anomalies were drilled and the drill holes intersected two adjacent breccia pipes associated with the graphite mineralization, which was found to have extraordinary properties. This is how the Albany graphite deposit was discovered. Subsequent ground geophysical surveys (large loop TDEM) in 2013 provided improved resolution of the two breccia pipes (Legault et al., 2015).

Zenyatta's "hydrothermal" graphite was compared to the graphite mined in Sri Lanka, which was interpreted to be the "vein-type" graphite of unusually high purity and unique physical properties. Graphite veins are quite rare and in many industrial applications offer superior performance due to higher thermal and electrical conductivity. The Zenyatta deposit is near surface, underneath glacial till overburden and a thin veneer of Paleozoic sedimentary cover rocks.

The graphite-hosting rocks of the Albany complex vary from quartz syenite to diorite to nepheline syenite, with quartz-monzonite predominating. In contrast, the NRAC consists of fine- to coarse-grained amphibole-pyroxene syenite and lesser coarse-grained nepheline-bearing syenite and pegmatitic syenite, and minor granite (Sage, 1988).

The East and West (Fig. 7) pipes consist of angular to sub-rounded, millimeter - to meter-scale clasts. The clasts are mainly from the Albany complex, but fragments of amphibole-biotite schist, tournaline-bearing granite, granite and gneiss, similar to rocks in the Marmion terrane and Quectico subprovince are common. Although sparse, brecciated fragments of semi-massive to massive graphite + silicate minerals occur in both pipes.

The matrix consists of fine-grained (<0.5 mm) silicate minerals, which typically occur as discrete crystals and small monomineralic to polycrystalline aggregates intermixed with graphite. Matrix silicates tend to be angular to subangular and consist mainly of albite (30-60 modal%), perthitic feldspar (<40 modal%) and quartz (<25 modal%; Quartz crystals commonly display a polygonal fracture pattern. Finely disseminated solitary crystals and crystal aggregates of pyrite-pyrrhotite and magnetite are also observed in the matrix and less commonly in fragments. The sulphide-oxide assemblage comprises less than 3 modal% of the rock, and typically <1 modal%. Discrete crystals of phlogopite and amphibole are rare win the matrix and local in lithic fragments. Hydrous silicate phases comprise <20 modal% of the rock.

Conly and Moore (2015) interpreted the rock as a hypabyssal, subvolcanic phase based on the occurrence of: 1) aphanitic groundmass consisting of albite, pargasite and minor nepheline; 2) embayed and sericitized albite xenocrysts with discontinuous, epitaxial overgrowths of sanidine; and 3) corona textured magmaclasts (consisting of a core of variably altered groundmass, an intermediate zone of subhedral to euhedral phlogopite and rimmed by anhedral to subhedal, radiating hastingsite \pm phlogopite). The hypabyssal phase is mainly distributed along the margins of the West pipe, but also occurs at depth (~400 m) along the outer margin of the East pipe, where it is cut by augite-aegirine syenite.

RPA estimated Mineral Resources for the Albany graphite deposit using drill hole data available as of November 15, 2013 (Cox et al., 2015). The estimate is based on a potential open pit mining scenario. The estimated Indicated Mineral Resources total 25.1 Mt at an average grade of 3.89% Cg, containing 977,000 tonnes of Cg. In addition, Inferred Mineral Resources was estimated to total 20.1 Mt at an average grade of 2.20% Cg, containing 441,000 tonnes of Cg. Mineral Resources are reported at a cut-off grade of 0.6% Cg. Mineral Resources are constrained within a preliminary optimized pit shell in Whittle software (Cox et al., 2015).

4. **EXPLORATION**

4.1. 2018 Field Program (Prepared by Kevin Cool – Zen Geomap)

The FLWGP area is swampy, forested and the ground is overgrown with dwarf cedar and alder underbrush. There are no roads and/or ATV trails to access it and the access is best by helicopter. During previous field work, two helicopter pads, one in the eastern portion and another in the central – northern portion of the claim block, were located. During the 2018 field program, two new helicopter pads were identified. The new pads were likely cut by forest fire crews in summer 2017. Helicopter pad locations are shown in Figs. 8, a, b, c, d.



Fig. 8 – Helipad Locations



Fig. 8a – Helipad 1

Used on previous work programs (North end of property)



Fig. 8b – Helipad 2 Used on previous work programs (East side of property)



Fig. 8c – Helipad 3

Identified by air photo



Fig. 8d – Helipad 4 Helipad used on August 18th, 2018 by Zen Geomap

Zen chartered a helicopter from Helicopters Canada and the 2-man crew (Patrick Fera and Brandon King) travelled from Timmins on August 17th to meet the pilot in Hearst one day ahead of field work.

Due to a shortage of helicopters during a busy fire season, the nearest-available helicopter was mobilized from North Bay to Hearst, Ontario. All field work was conducted on Aug 18, 2018 based out of Hearst airport.

Drone Magnetometer Survey

FLWGP was surveyed using drone magnetometer. A total of 113 Line km was flown using a Geometrics MFAM magnetometer adapted to fly on a DJI Matrice 600 Pro hexacopter drone;

- 105 Line km (grid lines)
- 8 Line km (tie lines)
- 113 Line km (total)

The Geometrics MFAM magnetometer collects readings on 2 sensors at a rate of 1000 readings per second (1000hz) with sensitivity of 0.00003nT. MFAM specifications are included in Appendix I.

The DJI M600 drone follows a pre-programmed flight path using specialized piloting software. Flight lines (grid lines and tie lines) were designed to cover the extent of FLWGP mining claims at 50m line spacing (for grid lines) and approximately 770m spacing (for tie lines). The location of flight lines is included on maps in Appendix IV. Specifications for DJI M600 drone are included in Appendix II.

Prior to flying the grid, terrain was mapped by drone using photogrammetric methods. The elevation of tree canopy was mapped and uploaded into the piloting software. This allows the drone magnetometer to "follow terrain" and to avoid hitting trees. For the FLWGP grid, a safe altitude of 30m AGL (above ground level) was used across the grid. Air photos included in this report were obtained as a by-product of the magnetometer survey.

A Geometrics G-856AX proton procession magnetometer was operated throughout the survey and used to provide diurnal correction. Specifications are provided in Appendix III.

Magnetometer data was processed and leveled using Geosoft Oasis Montaj. Total Field, 1st vertical derivative and flight path maps are included in Appendix IV.

The 2018 drone-survey detected a remanent magnetism anomaly, which is delineated by nT 160 contour (pink) in Fig. 9. The historical mag anomaly is delineated by broken lines and it is apparent that the two anomalies in general coincide and can be used as a guide to further work.



673200 673400 673600 673800 674000 674200 674400 674600 674800 675000 675200 675400 675600 Fig. 9: 2018 mag anomaly at nT 160 contour (pink) overlap on historic mag anomaly (broken lines).

5. CONCLUSIONS AND RECOMMENDATIONS

The Pitopiko River area has been largely underexplored in the past mainly because of poor outcrop exposure and younger cover rocks overburden. The interest was sparked by historical airborne geophysical surveys, which detected several magnetic anomalies indicative of breccia pipe clusters similar to kimberlite pipes (diatremes) within structural corridors. Zenyatta Ventures Ltd. was among the first to stake the claims aiming at magnetic anomalies as potential sources of nickel, copper and platinum group metals. A VTEM survey was flown and the anomalies were drill tested. Some of the drill holes intersected graphite mineralization disseminated in gneiss, syenite, granite, diorite and monzonite host rocks.

This discovery prompted other companies including Xyquest and Bluenose to stake claims in the area. After acquisition, Xyquest and Bluenose conducted a reconnaissance survey and an airborne magnetometer survey was recommended to better delineate the historical magnetic anomaly on the property. The survey was contracted to Zen Geomap Inc. ("Zen"), and a drone-borne magnetic survey was flown in August 2018.

The survey identified a residual magnetic anomaly ranging from 80 to 350 nT, which generally coincides with the historical remanent mag anomaly. The anomaly is interpreted to be either a result of the primary source being removed or it is shielded by a non-magnetic overburden (limestone?). Alternatively, it may indicate a breccia pipe occurrence similar in composition and structure as the Zenyatta's graphite-bearing pipes. The anomaly occurs within a broader magnetic feature that is less intense to the SE. Lower intensity may be caused by deeper overburden to the SE and possibly limestone cover.

Situated immediately west of the main anomaly, a smaller magnetic anomaly with a diameter approximately 280 meters covers an area 10.9 ha. This anomaly may indicate a mafic/ultramafic body, such as a kimberlite pipe. The calculated 1VD magnetic responses ranging from -237 nT to + 2.66 nT can be used to estimate the depth extent of the magnetic source.

In conclusion we can state that further work on the FLWGP is warranted and should include inversion modeling to test the depth extent of the magnetized body and ground induced polarization and resistivity survey to test the possibility of graphite-bearing rocks being buried below the overburden. The cut-lines and the survey should be conducted during winter season when the ground is frozen.

XYQUEST MINING CORP.

Suite 702 • 889 West Pender Street • Vancouver BC • V6C 3B2 • Tel. 604.683.3288

Empire Metals Corp.	1-Nov-18
702-889 West Pender Street	Account #2018-009
Vancouver, BC V6C 3B2	GST#896269297

Re: West Graphite Property Exploration August 2018

	Days		Fees per Day	Amo	ount
Senior Geologist, Dr. Bohumil B. Molak, PhD, PGeo Extensive research on area for dron geophysical survey, report preparation	۵	1	\$ 800.00	\$	3,200.00 3,200.00
Zen Geomap Inc. 2018 Field Program - Drone Magnetometer and Air Photo Mapping	2	2		\$	<u>14,660.00</u> 14,660.00
Helicopters Canada				\$	9,204.86 9,204.86
Digitization, Preliminary Exploration Report (at 10% of costs)				\$	2,706.49
Office Administration Fee				\$	500.00
Subtotal				\$	30,271.35
GST 5%				\$	1,513.57
Total				\$	31,784.91

This is our account herein

XYQUEST MINING CORP.

per:

ANTHONY J. BERUSCHI

• INTEREST OF 2% PER MONTH, COMPOUNDED MONTHLY, OR 26.8% PER ANNUM CHARGED ON OVERDUE ACCOUNTS

6.1. Proposed budget for recommended work

First stage

2,000.00
200.00
286.00
2,486.00
10,000.00
28,000.00
1,500.00
2,000.00
2,000.00
4,350.00
5,655.00
53,505.00

7. REFERENCES

Algoma Steel Corp., 1963-1966: MNDM Assessment Report File T-4267, Nagagami River File – Alkaline Ring Complexes, Hearst Area.

Cox, J. J., Ross, D., Masun, K. M., Lavigne, M., Scholey, B. J. Y., and Chubb, D., 2015: Technical Report on the preliminary economic assessment of the Albany Graphite Project, Northern Ontario, Canada; Rock Solid Resources Proven Advice NI 43-101 report; for Zenyatta Ventures Ltd.

Crone Geophysics and Exploration Ltd., 2013: Geophysical Interpretation Report Covering Surface Pulse EM Surveys Over the Albany Graphite Project by Zenyatta Ventures Ltd., during February – march 2013, p. 17.

Daigle, R.J., 2001: Geoserve Canada Inc.; Report of Work, McCoig Project- Line Cutting, TFM & IP Surveys for Valerie Gold Resources Limited & East-West Resource Corporation; MNDM Assessment File Report T-4657.

Geisler, R.A., 1957-1961: Fatima Mining Company Limited, Electromagnetic Survey Report, MNDM Assessment Report File T-4273.

Gowest Amalgamated Resources Ltd, 2002-2003: Report on Helicopter-Borne Magnetic and Electromagnetic Survey and Diamond Drilling, MNDM Assessment File T-4876, Hearst Area.

Jagodits, F. & Paterson, N., 1964: Hunting Survey Corporation Limited for Algoma Ore

Properties Limited, Airborne Magnetic Survey, MNDM Assessment Report File T-343, Nagagami River Area.

Keevil Mining Group, 1969: MNDM Assessment File Reports, Drill Logs and Summary Reports.

Koulomzine T., 1959: Report on magnetic survey; assessment report 08473.

Legault J. M., 2010: 43-101 Technical Report on the Albany Project; Geotech Ltd. for Zenyatta Ventures Ltd., p 1-81.

Metal Creek Resources: Blackflake West Graphite Project; a PP presentation

Molak B., B.:2013: Geological report on the Feagan Lake West Graphite prospect, Northwestern Ontario, Canada; assessment report for Xyquest Exploration Corp., and Bluenose Gold Corp.

Ontario Geological Survey, 1999: Aeromagnetic Geophysics, Geophysical Data Set 1036. Pollock, T., 2001: Valerie Gold Resources Limited, Diamond Drill Report, MNDM Assessment File T-4654, McCoig Project.

Potapoff, P., 1989, The Martinson carbonatite deposit, in Notholt, A.J.G., Sheldon, R.P., and Davidson, D.F., (eds.), Phosphate deposits of the world, v. 2: Cambridge University Press, p. 71–78.

Sage, R.P., 1979, Alkalic rocks carbonatite complexes: Ontario Geological Survey, Summary of field work, 1979, Miscellaneous Paper, v. 90, p. 70–75.

Sage. R.P., 1988: Geology of carbonatite-alkalic rock complexes in Ontario : Nagagami River alkalic rock complex, district of Cochrane / : Ontario Ministry of Northern Development and Mines, Ontario Geological Survey, Study 43.

Sage, R., and Watkinson, D.H., 1991, Alkalic rock-carbonatite complexes of the Superior structural province, northern Ontario, Canada: Chronique de la Recherche Miniere, no. 504, p. 5–19.

Stott, G.M., 2007-2008: Ontario Geological Survey Map P3599, Hudson Bay and James Bay Lowlands Region Interpreted From Aeromagnetic Data, South Sheet.

Vaillancourt, C., Sproule, R.A., MacDonald, C.A., and Lesher, C.M., 2003: Investigation of Mafic-Ultramafic Intrusions in Ontario and Implications for Platinum Group Element Mineralization: Operation Treasure Hunt; Ontario Geological Survey Open File Report 6102.

Venn, U.R.1964: Nagagami River Alkaline Ring Complex; unpublished, undated report, prepared for Algoma Ore Properties, The Algoma Steel Corporation Ltd., Assessment Files Research Library, Ontario Geological Survey, File 83.1-4-1, 8p.

Venn, V.R., 1965: Algoma Ore Properties Division, MNDM Assessment Report File T-338; Report on the Nagagami River Alkaline Ring Complexes, Hearst Area.

Venn, V.R., 1967: Algoma Ore Properties Division, MNDM Assessment Report File T-351; Report on the McGale Copper Prospect, Nagagami River Area.

Woolley, A.R., 1987: Alkaline rocks and carbonatites of the world – Part 1: North and South America: London, British Museum (Natural History), 216 p.

8. STATEMENT OF QUALIFICATIONS

- I, Bohumil (Boris) Molak, Ph.D., P.Geo (BC)., do hereby certify that:
- 1. I am a self-employed Geoscientist residing at 312, 9298 University Crescent, Burnaby, BC., V5A 4X8, Canada.
- 2. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (License No. 28600) in good standing.
- 3. I graduated from the Comenius University of Czechoslovakia with a Bachelor of Science (Mgr.) in Economic Geology in 1970. From the same university I obtained in 1980 the degree Master of Science in Economic Geology (RNDr.) and in 1990 the degree Doctor of Philosophy (CSc.). I have practiced my profession continuously since 1970.
- 4. My geological practice includes research, prospecting, and exploration for precious, base, ferrous and other metals in Slovakia, Zambia, Cuba, Guinea, Canada, Chile and Argentina.
- 5. Since July 2003 until present I am a self-employed, consulting geoscientist.
- 6. I conducted the field work on the Feagan Lake West Graphite Prospect in November, 2015 and I co-author the report presented here.
- I am the Qualified Person for the purposes of this report. I am responsible for the items 1 to 3 and 5 to 8 items in this report except the item 6. 2015 Exploration Expenses, which was prepared by Xyquest Mining Corp.
- 8. The sources of all information not based on personal examination are quoted in Chapter 5. As of the date of this Statement I am not aware of any material fact or material change with respect to the subject matter of this report that is not reflected in this report, the omission of which would make the report misleading.
- 9. I am independent of Xyquest Resources Corp., and Bluenose Gold Corp.



Dated at Vancouver, BC, Canada, this 29th day of November, 2018.

9. STATEMENT OF QUALIFICATIONS

Author: Kevin Cool Qualifications and Experience

1982 Graduated from Timmins High and Vocational School
1983 Studied photography at Humber College, Toronto, Ontario
1984 to 1988 Worked for family owned transportation business in Moosonee, Ontario
1988 to 1990 Studied Survey at Northern College, South Porcupine, Ontario
1990 Graduated with Survey Engineering Technician Diploma

1990 to 2001

Owned and operated General Surveys and Exploration based in Timmins, Ontario.

The company provided contract survey, computer and information management services to the exploration and mining industry. Software includes Acad, Gemcom and Surpac, with specialization in using computers for the mining and exploration industry.

Work included volumetric survey of land areas to be used as tailing basins, where computerized 3D models were utilized. Diamond drillhole, underground engineering and mechanical design/construction surveys were common contracts for mining and exploration companies. Significant accomplishments include the design and construction of the 110km winter road from Attawapiskat to the Victor Project.

Clients included;

DeBeers Canada Exploration (Monopros), Southernera Resources, Dome Exploration, Placer Dome Detour Lake, Musselwhite and Dome Mines, Exall Glimmer Mine, Claude Rundle Gold Mine, TVX Mines' projects in Northern Greece, Moneta Porcupine Mines, Black Pearl Minerals, St. Andrew Goldfields, Battle Mountain Gold, Pentland Firth, Kinross Gold, Band-Ore Resources, McKinnon Prospecting and many other companies and individual prospectors.

2000 to 2005

Began collaborative work with Brian K. Polk (Polk Geological Services) and established a private exploration company called Big Red Diamond Company. This small company began to stake property near Attawapiskat and Coral Rapids. Eventually the survey business was put aside to focus full time on diamond exploration.

Big Red Diamond Company entered into a Joint Venture with a private company owned by Dr. Charles Fipke of Kelowona, B.C. on a group of properties near DeBeers' Victor Project in the Attawapiskat region. Dr. Fipke is the renowned geologist who found Canada's first diamond mine, the Ekati Mine in Northwest Territories.

Since 2001 the author has been exposed to all aspects of diamond exploration including;

Claim staking, field work, camp construction, airborne and ground magnetometer survey, planning and management of large scale geophysical programs, planning, management and interpretation of regional and property scale sampling programs.

Exposure to the industry includes training and field work under the discretion of Dr. Fipke. Introduction to kimberlite mineral identification from Dr. Fipke was expanded by personal research and study, which continues to current and lead to the establishment of True North Mineral Laboratories in Timmins, Ontario.

Advanced analysis, beyond the stage of heavy mineral separation, or observation using binocular microscope, is handled by other certified analytical laboratories, such as *CF Minerals*, of Kelowona, B.C.

2002

Big Red Diamond Company became a publicly traded corporation.

The author is one of the co-founders of Big Red Diamond Corporation, which trades on

the TSX Venture Exchange under the symbol DIA.

The author continues to actively stake mining claims and process sample material for private and public companies.

2005 to 2009

Established True North Mineral Laboratories, at 475 Railway Street, Timmins, Ontario and added Actlabs-Timmins in early 2006. Lab processes, equipment setup and procedures are now supervised by Actlabs, based in Ancaster, Ontario.

The management and employees of True North Mineral Laboratories / Actlabs-Timmins, receive ongoing support and training directly from Actlabs - Ancaster. The laboratory processes fall under Actlabs certification, providing analysis is carried out by the main facility in Ancaster. In this capacity, True North Mineral Laboratories acts as a preparation facility for Actlabs and is qualified to handle material preparation prior to direct analysis by Actlabs.

2009 to 2011

Sold prep facility to Cattarello Assayers Inc., who now operate a gold fire assay facility at 475 Railway Street, Timmins. True North Mineral Laboratories opened a small, private facility at 68 Bruce Avenue, South Porcupine in early 2011.

True North Mineral Laboratories utilizes the services of Actlabs and CF Mineral Research, for projects where an accredited laboratory is required. True North Mineral Laboratories continues to offer a wide range of field services to the exploration Industry.

2011 to Current

True North Mineral Laboratories Inc. changed names to UAV Timmins in June, 2014.

UAV Timmins provides drone aerial mapping services to mining and exploration companies, along with geochem sampling and other services.

Zen Geomap Inc. was incorporated in 2017 and provides drone magnetometer services to clients across Canada. The Author is part owner of Zen Geomap.

Zen Geomap was selected as a beta-tester to help develop Geometrics MFAM technology. More recently in 2018, our company has carried out drone magnetometer surveys in Quebec, Ontario, Saskatchewan and B.C.

APPENDIX I

Geometrics MFAM Magnetometer Specifications

System Basics

- System utilizes 2 MFAM sensors
- Sensors are controlled by 1 sensor module
- Sensor module communicates with a Texas Instruments main board
- Sensitivity: 0.00003nT
- Sensors operate at 1000Hz (collect 1000 readings per second on both sensors)

Technical Specifications

SPECIFICATIONS:

Mechanical:

Enclosure Dimensions: 9" x 6 5/8" x 1 3/16" Sensor Cable length (Development box to Sensor): 20.5 inches

Power:

AC adapter: 13.5 to 16 Volts DC at 1.0A Battery Pack: 12 volt 1800 mA-Hour Lithium Polymer

FEATURES:

- <u>TIVA TM4C1294NCPDT Micro controller:</u> This is a 32 bit ARM Cortex-MF4 based microcontroller running at up to 120 MHz. It has 1024K of flash, with 256K bytes of RAM, and 6 KBytes of EEPROM.
- 2) USB 2.0 Micro Connector: USB functionality is provided by the TIVA microcontroller and TIVAWare support libraries.
- 3) Four User LEDs: Four user controlled LEDs are wired to TIVA microcontroller GPIO pins PK0, PK1, PN0, and PN1.
- 4) **Two User Switches:** Two user read switches are wired to the microcontroller pins PK6 and PJ1.
- 5) **One Microcontroller Reset Switch:** This switch is used to reset the microcontroller.
- 6) Wi-Fi port for TI CC3100 Wi-Fi Booster Pack: The Development board layout allows a TI CC3100 Wi-Fi Booster pack to be directly plugged in. Using TIVAWare libraries, software can be developed to allow Wi-Fi communication between the Development board and a computer.
- 7) USB XDS110 Port for Firmware Downloading and Debugging: This second USB port is used as a debug/firmware download interface between the TI Code Composer Studio development suite and the Development Kit.

- 8) Two RS-232 Serial Ports with RJ-45 Connectors: Two general purpose serial ports are available to the user. The first serial port is wired to TIVA microcontroller UART4, and supports RTS and CTS handshaking. The second serial port is wired to TIVA microcontroller UART5. This port supports only TxD and RxD. Both of these ports use +/- 8 volt voltage swings, and support baud rates up to 920 KBaud. Note that these two ports are wired as Data Terminal Equipment (DTE) Thus to connect either of these two ports to a computer it would need to connect through a null modem.
- 9) On Board GPS Module: An Adafruit GPS module is included with the Development Kit. It features 66 channels, -165 dBm sensitivity, and 3 Meter accuracy. An external GPS antenna is included so that signals can be received inside the box even with the cover in place. By default



the GPS powers up to 9600 baud with several GPS sentences being output. The firmware that comes with the Development kit reconfigures the GPS to output only an RMC sentence at 115200 baud. This RMC string is sent with the output TCP data

Figure 3: Serial Port Pinout

packet as described in the "Ethernet Data Format" section. The GPS is wired to UART7 on the TIVA microcontroller using 0-3.3 volt logic swings.

The 1PPS pulse from this GPS goes to the MFAM development module and disciplines the cycle rate to exactly 1 kiloSamples per second.

- 10) Micro SD Card Slot for Storing Data Locally: A micro SD card slot is available for the user to read and write data using a SPI interface. It is connected to SPI port 1 of the TIVA microcontroller.
- 11) 10 MHZ Timing Reference Input Port: This input port takes a 10 MHz reference signal from a GPS disciplined reference oscillator, buffers and squares it up, and sends it to the MFAM module. The purpose of this signal is to lock the MFAM clocking system to this reference signal so that the Larmor frequency can be measured to an absolute standard. At this time, the MFAM does not support this feature. This function will be implemented in the future.
- 12) Ethernet port with Power over Ethernet Compatibility: The Tiva microcontroller contains a fully integrated Ethernet MAC and PHY. In addition, the Ethernet port can power the Development Kit via Power over Ethernet (PoE) using an Ethernet power injector.
- 13) <u>1.8 Amp-Hour Battery pack</u>: Three on board lithium/polymer batteries can power the system for 2 hours. A switch on the Development board allows the battery to be turned on/off. In addition, if the battery voltage falls below 8 volts the MFAM module will automatically shut down while keeping the microcontroller alive.
- 14) Integrated Battery Charging system: A lithium/polymer battery charging system is on board. If the battery switch is turned on, and the AC power adapter is plugged in, the batteries will be charged.
- 15) Four Differential Analog Input Channels: There are four differential analog inputs available for use. Channels 0 and 1 are +/- 2.5 volts full scale, while channels 2 and 3 are 0 to +5 volts full scale. In the firmware supplied with the Development kit (which sends MFAM/GPS data to the MFAMConsole program on the computer), all four channels are sampled synchronously with the MFAM data input to the Tiva are included in the data stream.
- 16) On board Power/Status LEDs: Several Status and Power LEDs are arranged along the front edge of the board. They include the four user LEDs, Power status LEDs (which power source is powering the board, and whether the battery is charging or the voltage low). They are listed in the Front and Back Panel Connection and Indicator section below.

Appendix II - DJI Matrice 600 Pro Specifications

Specifications

• Aircraft		
Diagonal Wheelbase	1133 mm	
Dimensions	1668 mm × 1518 mm × 727 mm with p	propellers,
	frame arms and GPS mount unfolded	(including landing gear)
	437 mm × 402 mm × 553 mm with pro	pellers,
Weight (in a TO 170	frame arms and GPS mount folded (ex	(cluding landing gear)
Weight (with six TB47S batteries)	9.5 kg	
Weight (with six 18485 batteries)	10 kg	
Max Takeon Weight Recommended	15.5 kg	
Hovering Accuracy (P-GPS)	Vertical: ±0.5 m, Horizontal: ±1.5 m	
Max Angular Velocity	Pitch: 300%s, Yaw: 150%s	
Max Wind Resistance	25	
Max Wind Resistance	8 m/s	
Max Ascent Speed	5 m/s	
Max Second	3 m/s	
Max Service Colline Apres Service	40 mph / 65 kph (no wind)	1500
Housering Times' (with aix TP472 betterne)	2170 propellers: 2500 m, 2195 propell	ers. 4500 m
Hovering Time" (with six TB495 batteries)	No payload: 32 min, 6 kg payload: 16	min
Flight Castal System	No payload: 38 min, 5.5 kg payload: 1	8 min
Flight Control System	AS Pro	VENCE 7
Supported DJI Gimbals	Ronin-MX; ZENMUSE Z30, Zenmuse	X5/X5R, Zenmuse X3, Zenmuse X1,
Potrostable Landian Coor	Zenmuse Z15 Series HD Gimbal: Z15-	A7, Z15-BMPCC, Z15-5D III, Z15-GH4
Operating Temperature		
Operating remperature	14° to 104° F (-10° to 40° C)	
- 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	FCC Compliant: 3.1 mi (5 km), CE Cor	mpliant: 2.2 mi (3.5 km) (Unobstructed, free of interference)
Transmitter Power (EIRP)	10 dBm @ 900M, 13 dBm @ 5.8G, 20	dBm @ 2.4G
Video Output Port	HDMI, SDI, USB	
Operating Temperature	14° to 104° F (-10° to 40° C)	
Battery	6000 mAh LiPo 2S	
 Charger (Model: MC6S600) 		
Voltage Output	26.1 V	
Rated Power	600 W	
Single Battery Port Output Power	100 W	
 Standard Battery (Model: TB47S) 		
Capacity	4500 mAn	
Voltage	22.2 V	
Battery Type	LiPo 6S	
Energy	99.9 Wh	
Net Weight	595 g	
Operating Temperature	14° to 104° F (-10° to 40° C)	
Max Charging Power	180 W	
Optional Battery (Model: TB48S)		
Capacity	5700 mAh	
Voltage	22.8 V	CCADAD O X
Battery Type	LiPo 6S	(E1313 🖾 RoHS 🚞
Energy	129.96 Wh	This device complies with part 15 of the FCC Rules.
Net Weight	680 g	(1) This device may not cause harmful interference, and (2) this device must access any interference, and
Operating Temperature	14° to 104° F (-10° to 40° C)	interference that may cause undesired operation.
Max Charging Power	180 W	
-		

APPENDIX III Geometrics G856AX Magnetometer (base station)



Figure 23. Internal reset switch.

Specifications

- Displays Six digit display of magnetic field to resolution of 0.1 gamma or time to nearest second. Additional three-digit display of station, day of year, and line number.
- Resolution Typically 0.1 gamma in average conditions. May degrade to lower resolution in weak fields, noisy conditions or high gradients.
- Absolute accuracy One gamma, limited by remnant magnetism in sensor and crystal oscillator accuracy.
- Clock Julian clock with stability of 5 seconds per month at room temperature and 5 seconds per day over the temperature range of -20 to +50 degrees Celsius.
- Tuning Push button tuning from keyboard with current value displayed on request. Tuning range 20 to 90 $\mu T.$
- Gradient Tolerates gradients to 1800 gammas/meter. When high Tolerance gradients truncate count interval, maintains partial reading to an accuracy consistent with data.
- Cycle Time Complete field measurement in three seconds in normal operation. Internal switch selection for faster cycle (1.5 seconds) at reduced resolution or longer cycles for increased resolution.
- Manual Read Takes reading on command. Will store data in memory on command.
- Memory Stores more than 5700 readings in survey mode, keeping track of

50

Geometrics, Inc.

G-856AX Operation Manual

time, station number, line number day and magnetic field reading. In base station operation, computes for retrieval but does not store time of recording designated by sample interval, allowing storage of up to 12,000 readings.

- Output Plays data out in standard RS-232 format at selectable baud rates. Also outputs data in real time byte parallel, character serial BCD for use with digital recorders.
- Inputs Will accept an external sample command.
- Special An internal switch allows:
 - adjustment of Functions polarization time and count time to improve performance in marginal areas or to improve resolution or speed operation
 - o three count averaging
 - o choice of lighted displays in auto mode.
- Physical
 - o Instrument console: 7 x 10 1/2 x 3 1/2 inches (18 x 27 x 9 cm), 6 LB (2.7 kg)
 - Sensor: 3 1/2 x 5 inches (9 x 13 cm), 4 LB (1.8 kg)
 - Staff: 1 inch x 8 feet (3cm x 2.5m), 2 LB (1kg)
- Environmental: Meets specifications from 1 to 40°C. Operates satisfactorily from -20 to 50°C.
- Power Depending on version, operates from internal rechargeable Gel-cells or 9 D-cell flashlight batteries. May be operated from external power ranging from 12 to 18 volts external power. Power failure or replacement of batteries will not cause loss of data stored in memory.
- Standard system (P/N 16600-02) components:
 - Sensor (P/N 16076-01) and sensor cable (P/N 16134-01)
 - Console (P/N 16601-01)
 - Staff, one top section (P/N 16535-01), two middle sections (P/N 16536-01) and 1 bottom section (P/N 16537-01)
 - o Carry harness (P/N 16002-02)
 - Two sets of rechargeable batteries (P/N 16697-01) and battery charger (P/N 16699-01)
 - Carrying case (P/N 16003-01)
 - o Download cable (P/N 16492-01)
 - Hardcopy operation manual (P/N 18101-02)
 - Magnetometer CD (P/N 26648-01)
- Optional accessories:
 - Tripod kit for base-station operation (P/N 16708-02)
 - Gradiometer kit (P/N 166651-01)
 - Gradiometer carry/storage case (16003-01)

Geometrics, Inc.

G-856AX Operation Manual

51

APPENDIX IV

Flight Path – grid and tie lines



APPENDIX V

Total Field Colourized Contours



APPENDIX VI

Feagan Lake West Graphite Prospect, Claim Map

